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13. ABSTRACT *(Maximum 200 words)*

Breast cancer screening is currently the most reasonable strategy for reducing the impact of breast cancer on women. However, increased perceived risk and psychological distress have been associated with lower screening rates. Thus, this study seeks to: (1) assess the psychological distress of 350 women ages 50 to 85 who receive breast cancer risk appraisal and randomization to immediate or delayed group psychosocial counseling ; (2) assess their breast cancer screening behaviors over 2 years; (3) evaluate the degree of association between perceived and estimated risk of breast cancer; (4) describe short-term psychological reactions to breast cancer risk appraisal; and (5) describe their sense of coherence, coping style, other health-related behaviors, social support, and perceived quality of life. This study will provide important information about women's reactions to breast cancer risk appraisal and ways to enhance positive health behaviors.

In the first grant year, study personnel have been hired and trained. Recruitment, scheduling, mailing, participant tracking, and data collection materials and strategies have been developed. Intervention materials for the risk appraisal and group counseling session have been developed with focus group input and will be utilized with the first group of participants in Spring 1996.

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Barbara B Cochrane 5/6/96
PI - Signature Date

TABLE OF CONTENTS

INTRODUCTION

Nature of the Problem

Breast cancer is the most common cancer among women in the United States and is second only to lung cancer as a cause of cancer death (American Cancer Society, 1996). A woman's risk of developing breast cancer before age 85 is currently 1 in 9 (Marshall, 1993). The incidence of breast cancer has increased approximately 1-2% per year since that time, with death rates staying relatively stable (Kelsey & Horn-Ross, 1993; Marshall, 1993; Miller et al., 1993). As the incidence of breast cancer has increased, concern among health care professionals and women in general has also heightened. Anecdotal information and polls indicate that healthy adult women judge breast cancer to be their most serious health problem, despite the fact that women are at much higher risk of heart disease (Miller et al., 1993). Although several risk factors for breast cancer have been identified (e.g., family history, age at menarche and age at menopause, nulliparity), the majority of women who develop breast cancer do not have a significant family history, nor are they at high risk based on other known antecedent factors (Lerman et al., 1991; Marshal, 1993). Additionally, definitive primary prevention interventions for high-risk women have not been identified (Harris et al., 1992; Threatt, 1992), although ongoing clinical trials are evaluating promising medical and dietary interventions (National Surgical Adjuvant Breast and Bowel Project--NSABP, 1992).

Background of Previous Work

At present, secondary prevention of breast cancer through screening is the most reasonable strategy for reducing the impact of breast cancer on American women (Kelsey & Horn-Ross, 1993). Screening programs that include mammography, clinical breast examination (CBE) and breast self-examination (BSE) have been associated with early detection of breast cancer (Foster et al., 1978; Harris et al., 1993; Kelsey & Horn-Ross, 1993). Use of mammography alone has been associated with a 25 to 30% reduction in mortality due to detection of early-stage tumors and concomitant decreased metastasis and morbidity and increased survival (American Cancer Society, 1996; Harris et al., 1992; Kelsey & Horn-Ross, 1993; Shapiro et al., 1982; Tabar et al., 1993; Threatt, 1992). CBE has been credited with the detection of an additional 8% of tumors not detected by mammography alone (Threatt, 1992), and CBE and BSE are particularly appropriate screening strategies in populations that have minimal access to mammography (Morrison, 1993). The National Cancer Institute, along with several other health research-oriented organizations have reached consensus regarding guidelines for annual mammography and CBE (Jacobs Institute of Women's Health, 1990) for women 50 and older. The American Cancer Society (ACS) (1996) recommends that all women conduct monthly BSE.

Impact of Perceived Risk on Screening Behaviors

Inaccurate perceptions of a woman's risk for breast cancer can interfere with appropriate breast cancer screening behaviors. Previous research indicates that individuals greatly underestimate their own personal vulnerability to negative events such as crime victimization, natural disasters, and disease and disability, relative to the risk of others' (Fisher, 1991; Perloff, 1983; Weinstein, 1983, 1984, 1988, 1989). Results from health surveys suggest that people tend to significantly underestimate their own chances of contracting and dying from cancer (Knopf, 1976). Perceiving oneself as less likely than average to be vulnerable may benefit non-victims by reducing their feelings of anxiety, depression and helplessness, allowing them to carry out everyday activities without being constantly on guard (Langer, 1975). However, there are several reasons why such perceptions may be maladaptive. Failing to take precautionary measures, such as wearing a seat belt or adopting a low fat diet, may be a result of what Weinstein (Weinstein, 1980) terms an "optimism bias", that is, the tendency to be unrealistically optimistic about one's own vulnerability.

,Being optimistically biased might lull the person into a false sense of security, and to think that precautionary behaviors, such as risk factor screening and dietary change, are unnecessary.

In a study conducted to determine, in part, the relationship between perceived risk and BSE, Olson and Mitchell (1989) found that most of their participants (175 women 20-89 years old) rated their risk of developing breast cancer as fairly low. Older women in particular did not identify themselves to be at increased risk for breast cancer. Studies of perceived risk in breast cancer have shown a relationship between having a family history of breast cancer and a tendency to perceive breast cancer risk as very high (Gronert et al., 1993; Kash, 1993; Lerman, 1993; Vernon et al. 1993). A tendency to underestimate or overestimate personal risk has been shown to have an impact on the practice of breast cancer screening activities. The research literature, however, is inconclusive as to whether or not perceived risk has a curvilinear or negative relationship to breast cancer screening (Alagna et al., 1987; Calnan, 1984; Champion, 1991; Clemow et al., 1993; Kash et al., 1992; Massey, 1986; Polednak et al., 1991). Olson and Mitchell (1989) recommend that health professionals need to help women realistically assess their risks by individualizing discussions of breast cancer risks to each woman. They suggest that increasing the congruence between estimated and perceived risks could help women make the crucial link between risk recognition and the benefit of appropriate screening.

Impact of Psychological Distress on Screening Behaviors

Women report high levels of worry, and anxiety about their risk of developing breast cancer. This psychological distress is frequently found to predict low screening rates (Dean et al., 1986; Dermatis et al., 1989; Halper et al., 1989; Kash et al., 1992; Lerman et al., 1991). Increased psychological distress has been studied most often in women at high risk for breast cancer (e.g., strong family history) and those who have had abnormal screening mammograms (Lerman et al., 1991; Lerman & Schwartz, 1993; Dean et al., 1986). Increased cancer anxiety in these women was associated with poor CBE and BSE adherence. Other researchers have also documented a negative relationship between psychological distress and adherence to screening guidelines (Alagna et al., 1987; Kash et al., 1991; Lerman et al., 1990; Lerman et al., 1991; Lerman et al., 1995; Lierman et al., 1991), particularly among older women (Lerman et al. 1993). Over 27% of the women in the Kash et al. study (1991) had a level of psychological distress that was consistent with a need for counseling. These data suggest that relieving psychological distress through counseling could potentially improve breast cancer screening behaviors.

Risk Appraisal

We are now able to project a woman's risk for breast cancer based on environmental, endocrine, genetic and pathologic factors (Sclafani, 1991). Models or algorithms for determining a woman's risk of breast cancer have been developed based on extensive epidemiologic data and have been used to more specifically identify appropriate women for primary prevention and secondary prevention strategies. Risk appraisal, using the Gail breast cancer risk appraisal model (Gail et al., 1989; Gail & Benichou, 1994) is based on biological risk factors associated with breast cancer, including a woman's age at menarche, age at first live birth, number of previous breast biopsies, and number of first degree relatives with breast cancer (see Appendix). The risk appraisal is based on data from the Breast Cancer Detection Demonstration Project (BCDDP) (Baker, 1982) and is modeled differently depending on the woman's current age with weights assigned based on case control data from the earlier BCDDP. It produces a probability of developing breast cancer in the woman's lifetime on a scale of 0-100%. This model is being utilized in the current Breast Cancer Prevention Trial for estimating a woman's risk for breast cancer and providing her with this risk appraisal feedback (NSABP, 1992). It has also been used to assign women to specific risk categories for appropriate intervention and follow-up (Bondy et al., 1992). This model may slightly underpredict risk in older women, particularly those who do not adhere to annual mammography guidelines (Bondy et al., 1994).

The Breast Cancer Risk Appraisal from Group Health Cooperative (GHC) of Puget Sound (Taplin et al., 1990) is also based on BCDDP data, as well as Surveillance, Epidemiology, and End Results (SEER) data for the GHC population and epidemiologic data from Seidman and associates (1982) and others. The GHC model includes an assessment of a woman's age, her history of prior breast cancer, family history of breast cancer in first-degree relatives, and her number of minor risk factors, including family history in a second-degree relative, early menarche, late menopause, first birth after age 30 or nulliparity, and previous breast biopsy for benign disease. Based on this appraisal, a woman's risk is assigned to one of four risk categories (see Table 1) (Taplin et al., 1990).

Risk Appraisal Counseling

Based on risk appraisals such as the Gail or GHC model, women can be counseled about their individual risk of breast cancer. Indeed, increasing public awareness of these risk factors have created a demand for more informed counseling of women who may be at high risk (Gail et al., 1989). Psychosocial counseling interventions for women at risk for breast cancer, timelines for such interventions, and a means for targeting them appropriately based on women's perceived and estimated risk have not been studied adequately. Because breast cancer does not occur solely in women deemed at high risk, risk appraisal counseling is appropriate for all women, particularly to decrease psychological distress, enhance more realistic perceptions of risk, improve adherence to recommended screening guidelines, and promote early detection of breast cancer (Kash et al., 1992). Much is known about providing risk feedback regarding other types of health risks (McLeroy, 1989; Rowan, 1994; Wiegman-Oene & Gutteling, 1995). Thus, the health promotion literature and cognitive theories offer important insights for guiding such counseling about breast cancer risk. We have learned: (1) Reactions to risk factor feedback are not always positive, nor do they always reflect accurately the feedback given, (2) several baseline factors predict reactions to risk feedback, and (3), counseling programs must be implemented to assist people in making meaning of and coping with risk information. The present study will apply what we know about risk information and health promotion in general to the specific case of risk for breast cancer and evaluate its impact on breast cancer screening behaviors. Such evaluation is limited in the risk communication literature (Rohrmann, 1992).

Purpose of Present Work

This study is investigating the impact of risk appraisal feedback and randomization to an immediate versus delayed group psychosocial counseling intervention (within three or eight weeks, respectively) on the primary outcomes of perceived-versus-estimated risk, psychological distress, and breast cancer screening behaviors. The specific aims of this study are to:

1. determine the psychological distress of participants who receive breast cancer risk appraisal and randomization to immediate or delayed group psychosocial counseling,
2. assess participants' screening behaviors over two years, based on their level of estimated risk,
3. evaluate the association between perceived and estimated risk of breast cancer at baseline,
4. describe short-term psychological reactions to breast cancer risk appraisal feedback, and
5. describe sense of coherence, coping style, other health-related behaviors, social support, and perceived quality of life as secondary effects of the risk appraisal and counseling process.

Methods of Approach

Women between the ages of 50 and 85 are being invited to participate in this study of learning about and coping with breast cancer risk. Women are eligible if they respond to recruitment efforts, contact the

,Fred Hutchinson Cancer Research Center (FHCRC), and agree to participate. This project will recruit approximately 350 women who wish to learn more about their risk for breast cancer.

Recruitment will be accomplished through multiple approaches and tailored messages. Lerman and associates (1994) emphasized the need to tailor recruitment mesages to women's education levels. Initial recruitment is community-based and will include letters to area physicians about the study, public service announcements and newspaper advertisements, and mass mailing, if needed. Physician referral has been found to be a highly efficient source of participants (Agras et al., 1982). The Strang High Risk Breast Clinic in New York maintains its patient panel of about 700 to 800 high-risk women through public service announcements and advertisements (Halper et al., 1989). Patients at the Strang Clinic are self-referred mostly because of a family history of breast cancer. Previous research on recruiting for clinical trials have indicated that one of the more effective recruitment methods for primary prevention studies is mass-mailings (Meinert, 1986). Additional sources of potential participants, if needed, will be the large number of ongoing and completed epidemiologic studies conducted at FHCRC that identify women willing to participate in other research studies (many of whom have indicated an interesting in learning more about their risk for breast cancer).

All potential participants will receive a screening telephone call, regardless of the method of initial contact and recruitment. This screening contact will serve several purposes. First, the trained interviewer will explain the study and the risk appraisal and counseling process to potential participants. Second, baseline demographic and tracking information will be collected. Finally, the interviewer will make arrangements to send each potential participant a baseline questionnaire packet and will schedule a time for the risk appraisal feedback session.

Recruitment of African-American and Asian-American Women

Women from various racial and ethnic groups, as well as socioeconomic levels have been identified as particular groups with limited access to breast cancer screening. However, the recruitment of minority groups to research projects presents special challenges. We plan to recruit from these groups using a two-phase process. During phase 1, the precontact phase, efforts will be made to familiarize the community with the study through direct control social networking and involvement of community leaders and residents. Media, such as neighborhood newspapers and local radio programs, will be identified as vehicles for publicizing the study. In addition, primary care clinics serving the specific population, such as those clinics focusing specifically on providing services to African-American women, will be identified. Personal contacts will be made with clinic directors to ascertain optimum ways of publicizing the study and recommendations for recruitment strategies, such as through local church groups. During phase 2, the active recruitment phase, women will be actively recruited to participate in the study. During this phase, feedback about perceptions about the study will be obtained both from the participants and selected community leaders. Ongoing relationships with these community leaders will be maintained.

BODY

Experimental Methods Used

Intervention

Risk Appraisal

The risk appraisal will be carried out after baseline questionnaires have been received, using a computer algorithm to analyze and model both the Gail and the GHC breast cancer risk appraisal. Items on the GHC risk assessment form are included in the questionnaires in the Appendix. Randomization to immediate or delayed treatment conditions will be done at the time of risk appraisal. However, the treatment assignment will not be made available to the nurse counselor(s) providing the risk appraisal feedback or psychosocial intervention. The risk appraisal will be printed on a "Risk Appraisal Report" to be provided to the participant at the initial risk appraisal feedback session.

The risk appraisal feedback session with a nurse/counselor will first provide participants with accurate information about the goals and procedures of the risk appraisal. Full informed consent will be discussed at this visit, and the main consent form for the project will be signed. During this session, the baseline data assessment packet, including perceived risk and psychological distress, will be discussed to allow participants to process heightened anxiety and expectations. An outline of the session is contained in the Addenda. After the participant is given risk appraisal information, the nurse counselor will discuss options and concerns with her. The risk appraisal session will allow participants an opportunity to ask questions relative to the risk appraisal, its meaning in their lives, and possible coping strategies. Participants will be provided with health-promotion brochures (based on focus group input) detailing recommended screening guidelines, as well as information about how to contact a nurse counselor with additional questions or concerns. Following the explanation of her risk, the participant will be told that additional questionnaires will be mailed out to her and that she will be receiving a telephone call to schedule the psychosocial group counseling sessions.

Psychosocial Counseling Intervention

In order to assess the effects of psychosocial counseling on selected variables, women will be randomized to an immediate psychosocial counseling intervention or to an eight-week delay condition to serve as delayed treatment controls. Women randomized to the immediate treatment condition will be contacted by telephone and scheduled into a group within three weeks of the risk appraisal feedback session. Women randomized to the delayed condition will be contacted within eight weeks to be scheduled for group sessions. This time lapse will provide enough time for the immediate condition participants to complete their counseling and the three-month (post-counseling) follow-up assessments. This type of design has been used extensively in randomized trials of psychotherapy, attaining a balance between evaluating the treatment and treating all individuals who need it.

The intervention will consist of four sessions conducted in groups of 6 to 10 women and held every week. The content of the counseling sessions, focused on education, stress management, problem-solving, and social support, is outlined in the Appendix. Participants will be encouraged to contact the nurse/counselor in between visits with any concerns or questions that they have. The group and the nurse counselor will serve as an initial source of support. Friends and family members will be encouraged to continue support after the groups are over. After the four-session module is completed, the women will be referred to existing sources of group support in the community or they may continue to meet on their own informally. In other studies, we have used this model of peer-led support groups with success in that approximately 50% of the groups continue to meet after the formal meetings are over. A peer-led group

manual has been used in other studies to help peer leaders conduct groups and will be available for the present study.

A 5% random sample of risk appraisal and psychosocial counseling sessions will be tape-recorded to provide data from which to assure the quality and consistency of the ongoing study activities, based on the theoretical foundations and study protocol. These tape-recorded sessions will be transcribed and available for review by the project scientists, who will conduct the quality assurance evaluations. These tape-recorded sessions will also be available for secondary qualitative analysis of participants' individual responses and discussions during the sessions.

Data Collection and Management

Data will be collected on participants at four time points: at baseline, immediately following the risk appraisal feedback, three months after the initial visit, and two-years after the baseline visit (refer to Figure 1. Table 1 contains a timeline for measuring study constructs.

Prior to the first study visit, each participant will be mailed a packet of baseline forms to be completed at home and mailed in at least one week prior to the scheduled risk appraisal feedback session. This baseline assessment will include measures of risk appraisal variables, perceived risk, psychological distress, health-related behaviors, and other psychosocial constructs of interest. In addition to providing baseline assessments of all measures used during the study, this information will be used to estimate each participant's appraised risk for breast cancer. Strategies to enhance response rates to the mailed assessments and telephone data collection procedures are described in further detail below.

During their risk appraisal session, participants receive information about their estimated risk of developing breast cancer based on the analysis of the baseline assessment. Immediately following this visit, all participants will be mailed a post-appraisal assessment packet and asked to mail them back within one week. Women randomized to the immediate psychosocial counseling condition may bring their questionnaires to the first counseling session. Women in the delayed counseling group who have not returned their assessment packets within ten days post-mailing will receive a follow-up telephone reminder to prompt them to return their forms.

Three months after baseline, participants will be mailed a third assessment packet. At this point, only women in the treatment group will have participated in the counseling sessions, but all participants will be asked to complete the forms. This assessment will provide information about the immediate versus delayed treatment condition. All participants will be told to expect the three-month follow-up packets, complete them promptly, and return them in the accompanying postage-paid return envelope.

Two years after baseline (approximately 18 months after intervention), all women will be mailed a fourth assessment packet. At this point, all participants will have completed the group psychosocial counseling sessions, and the long-term effects of differential risk feedback (i.e., higher risk categories versus low-risk category) will be assessed.

Measures

Measures of estimated and perceived risk of developing breast cancer, psychological distress, breast cancer screening behaviors, sense of coherence, coping style, other health-related behaviors, social support, and perceived quality of life will be utilized in this study. All measures are self-administered questionnaires. The Appendix includes the questionnaire booklets containing these measures.

Estimated risk for breast cancer. Two measures will be used to appraise each participant's estimated risk of developing breast cancer during her lifetime. The GHC Cancer Risk Appraisal assesses information about breast cancer risk factors (as well as additional items on medical and screening history, and selected lifestyle behaviors) (Taplin et al., 1989; Taplin et al., 1990). Based on risk factors identified in the CRA, women are assigned to one of four risk categories (see Background section). For most analyses, the

moderate- and high-risk participants will be grouped together into a category of "higher risk", representing an estimated 17% of study participants. Although these estimates are based on the GHC population, significant differences in risk proportions for the current study are not anticipated.

Risk for breast cancer will also be assessed using the Gail model for risk appraisal (Gail et al., 1989). This algorithm results in a probability of developing breast cancer in the woman's lifetime on a scale of 0-100% and has been described in the Background section.

Perceived risk. Perceived risk, which has been associated in previous studies with breast cancer screening (Taplin et al., 1989; Taplin et al., 1990), will be based on subscales of the Health Belief Model (HBM) questionnaire adapted by Champion (Champion, 1993) using the context of breast cancer and breast cancer screening behaviors. This instrument consists of six subscales: susceptibility (perceived personal risk of contacting breast cancer), seriousness of breast cancer, benefits of breast screening, barriers to screening , general health motivation, and confidence in ability to engage in screening behaviors. Items for all subscales are formatted with a 5-point scale from "strongly agree" to "strongly disagree". Using a random sample (N=581) of women 35 years and over, Cronbach alpha reliability coefficients for the revised scales ranged from .80 to .93, and test-retest correlations ranged from .45 to .70 (Champion, 1993).

Perceived comparative risk, seriousness, and preventability will also be assessed using items developed by Weinstein (Weinstein, 1987). These items measure a participant's perceived risk compared to others her own age on a 7-point scale from "much below average" to "much above average", the perceived seriousness of the problem on a 5-point scale from "not at all serious" to "extremely serious or fatal", and the perceived preventability of the problem on 5-point scale from "can to nothing to reduce risk" to "completely preventable". Also included will be the GHC Cancer Risk Appraisal measure of perceived risk, in which participants rate their chances of ever getting breast cancer in their lifetime on a continuous scale of 0-100% (corresponding to the Gail model estimated risk). Taplin's assessment also asks women to place themselves into one of four risk categories (no, low, medium, high) based on their perceived risk of breast cancer (corresponding to the GHC model estimated risk).

Psychological distress. Psychological distress, including anxiety, breast cancer worry, and depression has been associated with risk-appraisal feedback and subsequent health behaviors.

Anxiety will be measured using the State-Trait Anxiety Inventory-Y Form (STAI). The STAI measures individual differences in the tendency to react with anxiety (Spielberger, 1983). It consists of 20 statements to which the respondent indicates the extent to which the statement is generally true for her on a 4 point scale from "almost never" to "almost always". Internal consistency of the scale in high school and college age-groups were all .90 or above (Spielberger, 1983). Test-retest reliability over 60 days ranged from .65 to .68. Validity of this instrument has been well-established by the authors.

Breast cancer worries will be measured by a single 4-point item used to assess the presence of breast cancer worries that interfere with daily functioning. This item has been shown to distinguish between persons at high and normal risk for breast cancer, and to relate to screening behaviors (Lerman et al., 1991).

Depression will be measured by the Center for Epidemiological Studies-Depression Scale (CES-D), which measures the recent occurrence of symptoms of depression. For each of the 20 symptoms listed, the respondent indicates the frequency with which that symptom has occurred during the past week, from "rarely or none of the time (less than 1 day)" to "most or all of the time (5-7 days)". The item pool is not dominated by somatic complaints or symptoms and has been well-accepted in non-clinic samples. Internal consistency in 3 samples from the general population ranged between .84 to .85 (Radloff, 1977). Test-retest reliability at 3 months was moderate (r=.48), as expected, since the CES-D was designed to measure the current level of depression. Validity of this instrument has been well-established.

Breast cancer screening behaviors. Breast cancer-related screening behaviors will be assessed using specific items from the CRA questionnaire (Taplin et al., 1989), which measures, in part, utilization of breast self-examination, clinical breast examination, and mammography screening. The CRA measures

reported screening behavior over the previous year. Adherence to breast cancer screening guidelines will be based on the ACS recommendations described in the Background section.

Sense of coherence. Sense of coherence, as a means for understanding cognitive appraisals and meaning-making during the process of risk appraisal and psychological counseling, will be measured by the Coherence Scale developed by Lewis (1990), which measures a person's sense that her world is predictable and understandable. Development of this scale was based on Antonovsky's (1980) notion that people who experience their world as coherent see life as predictable, lawful, reasonable, and comprehensible (1990). The Coherence Scale includes 29 statements about the degree to which life is understandable and controllable rated on a 7-point scale from "not at all" to "to a large extent". The four subscales include certainty, trust, cognitive control, and personal effectiveness. Standardized Cronbach's alpha for the total scale was .93 for women with breast cancer (n=111) (Lewis, 1990). Internal consistency for the subscales ranged from .66 to .89. A correlation of .57 between the Coherence Scale total score and the Rosenberg Self-Esteem Scale score has been reported (Young Graham & Cowan, 1990).

Coping. Coping style has been associated with psychological distress and health-promotion behaviors (Horowitz et al., 1980; Lerman et al., 1990; Miller & Mangan, 1983). Coping style will be measured using the Revised Ways of Coping Checklist (WCCL) (Vitaliano, 1990). The WCCL is a shortened version of the Ways of Coping Checklist (Lazarus & Folkman, 1984) and includes 57 items with subscales of problem-focused coping, wishful thinking, seeking social support, avoidance, self-blame, other-blame, counting one's blessings, and religiosity. Internal consistencies of the subscales in samples of medical students and spouses of Alzheimers patients ranged from .72 to .90 (Vitaliano, 1990; Vitaliano et al., 1985).

Other health-related behaviors. Health-related behaviors will be assessed using items taken from the Center for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS) and the Cancer Prevention Research Program's Behavioral Risk Factor Survey (CPRP-BRFS) . The BRFSS is an ongoing surveillance system maintained by state health departments through random-digit dialed telephone interviews of adults over 18 years of age. The CPRP-BRFS is a similar survey conducted in Washington State by an NIH funded program at FHCRC. Health-related behaviors include diet, alcohol intake, smoking habits, and cancer screening behavior.

Social support. Social support is a background variable known from prior research to be related to psychological distress, cognitive adaptation, perceived quality of life, and health responses (Cohen & Syme, 1985; Lindsey, 1988; Sarason et al., 1990). Social support will be measured by the Personal Resources Questionnaire (PRQ) Part 2, as developed by Weinert and Brandt (Weinert & Brandt, 1987). This 25-item questionnaire, rated on a 7-point scale from "strongly disagree" to "strongly agree", measures five dimensions of perceived social support: intimacy, social integration, nurturance, worth, and assistance. Weinert & Brandt (1987) report an internal consistency (Cronbach's alpha) for the total scale of .91, with coefficients ranging from .79 to .88 for the five subscales. Test-retest reliability over a 4- to 6-week period in a sample of college graduates 30-37 years of age was .72. Validity testing in this sample showed the total scale score to be negatively correlated with standardized measures of anxiety, depression, neuroticism, and extroversion (r=-.28 to -.42, p<.001).

Perceived quality of life. Perceived quality of life, as an important outcome of health status change, will be assessed to evaluate the impact of risk appraisal on lifestyle over time. Perceived quality of life will be used in this study, rather than more traditional quality of life measures that include such "illness-sensitive" dimensions as functional status or symptom distress. It is expected that perceived quality of life will prove a more sensitive indicator of changes in lifestyle due to risk appraisal, rather than illness. Four indicators of perceived quality of life will be obtained, including the Quality of Life Index (Cancer II), Current Quality of Life Scales, and Satisfaction with Current Quality of Life Scale. The Quality of Life Index (Cancer II) (Ferrans & Powers, 1984) measures perceived quality of life in health as well as unhealthy individuals. The scale consists of two domains, satisfaction and importance, that allow a final weighted

score of satisfaction based on how important the item is to the respondent. The 34-item Cancer II version has subscales of satisfaction with health and functioning, socioeconomic, psychological/spiritual, and family aspects of daily life. Each of the items is rated on a 6-point scale ranging from "very dissatisfied/unimportant" to "very satisfied/important". Standardized Cronbach's alpha has been reported at .90 for dialysis patients (Ferrans & Powers, 1984). Standardized Cronbach's alphas obtained for the subscales were .92, .88, .85, and .83 respectively, and .95 for the total scale (Young Graham & Cowan, 1990).

The Current Quality of Life Scale is a 1-item, 10-point scale rated from "poor" to "excellent" based on the respondent's perceived quality of life (Young & Longman, 1985). The Satisfaction with Current Quality of Life Scale is a 1-item, 10-point scale rated from "not at all satisfied" to "very satisfied" (Young & Longman, 1985). Following each scale item, respondents are asked to disclose what factors they were considering when they made their rating. Both items were chosen from a larger group of items as being the stronger estimates of perceived quality of life in subjects with malignant melanoma (Young & Longman, 1985; Young Graham & Longman, 1987). The Satisfaction with Current Quality of Life Scale has been correlated with the Quality of Life Index (r=.62), the Graham Global Well-Being Scale (r=.56), and the Current Quality of Life Scale (r=.76) (Young Graham & Cowan, 1990).

Demographics. Demographic variables of age, marital status, ethnicity, education, family income, and occupational position will be used to describe the study sample, evaluate the comparability of the control and intervention groups, and serve as covariates, as needed, in the analyses. Socioeconomic status will be calculated as an index, based on education, occupational position, and income (Green, 1985).

Data Management

The Evaluation Shared Resource (ESR) of the FHCRC Cancer Prevention Research Program is overseeing and providing staff for screening contacts, participant tracking, assessment packet and reminder postcard mailings, and post-mailing telephone data collection. Data are collected on self-report forms and key-entered into files prepared using a statistical software computer program. The ESR is a shared resource managed by professional staff experienced in survey research methodologies. This unit has extensive experience in conducting large-scale mail, telephone, and in-person surveys. ESR staff will oversee quality assurance, fielding operations, and recruitment and tracking procedures. They will also hire, train, schedule, and supervise interviewing and coding staff. All data are kept strictly confidential with participant identification information available only to study staff. No individual identifying information will be reported.

Strategies to Enhance Response Rates

To enhance the likelihood of a high response to the mailed questionnaires, strategies recommended by Dillman's Total Design Method for telephone and mail surveys will be used (Dillman, 1978). Initial mailing will include the packet of questionnaires, a postage-paid return envelope, and a cover letter explaining the study and emphasizing the importance of each participant's responses. Ten days after the initial mailing, a telephone call will be made to non-respondents to serve as a reminder to those who have not returned their questionnaire packets. Three weeks after the original mailing all non-respondents will be sent another packet of questionnaires, return envelope, and cover letter. Questionnaires will be printed on a high-quality paper, in booklet form, with no questions on the front or back pages, and with an attractive cover design. Mailed materials will be personalized (with the exception of the questionnaires and return envelopes) by including the participant's name on cover letters, postcards, and envelopes. Extensive attempts will be made to collect data from those women who do not return their mailed two-year follow-up assessments. If participants are non-responsive following telephone and second mailing reminders to return their assessment packets, telephone attempts to collect data relating to the primary outcome (i.e., breast cancer screening) will be made after the last mail prompt.

Participant Tracking

Every attempt is being made to keep track of the women during the active intervention and follow-up. During the initial baseline sessions, women will be asked to provide their own telephone number and address, and the names and telephone numbers of two persons who are always likely to know their whereabouts. Participants will be provided with a "change of address" postcard which they are encouraged to complete and mail in if she moves within the next two years. If during the two-year follow-up telephone attempts, it is found that a woman's telephone number has been disconnected or that she has moved, attempts will be made to locate her at her new residence. These include contacting directory assistance for the new telephone number and/or trying to reach the personal contacts indicated by each woman during her initial study visits. If a packet of questionnaires is found to be undeliverable, similar procedures will be used to try to determine the participant's current address.

Statistical Issues and Data Analysis

Evaluation and Data Analysis

Hypothesis 1: The group psychosocial counseling intervention will reduce psychological distress. At the 3 month assessment, we anticipate that the women who have had immediate counseling should have reduced psychological distress. Psychological distress at the 3-month minus post risk appraisal assessment will be calculated for the immediate counseling and delayed counseling groups. A two-sample t-test will be used to test the equality of means in the two groups. We expect that the difference in scores will be significantly lower in the group that has received the counseling.

Reduction in distress should also be related to a woman's perception of her risk of breast cancer. Psychological distress at the 3-month assessment minus distress following risk appraisal will be regressed on perceived risk at the 3-month assessment for women who have had the immediate counseling intervention. We anticipate that the coefficient for perceived risk will be positive, indicating that women who perceive themselves at greatest risk will benefit most from the counseling. For this regression, perceived risk will be measured using the Gail model or with Champion's perceived risk scale.

With the GHC representation of risk, the effect of perceived risk will be investigated through a two-way analysis of variance. The two factors are treatment group (two categories) and perceived risk (three categories, given that the two highest categories will be grouped). The outcome variable is psychological distress at 3 months minus psychological distress at risk appraisal. We anticipate that there will be a significant interaction between treatment and perceived risk. We anticipate no change in psychological distress in the delayed counseling group across the three risk categories but greater change for the high risk groups. One way analysis of variance will be used for comparing change in distress in the three perceived risk groups among women who have already received the counseling. Multiple comparisons will be used to further describe differences across the three risk groups.

Because psychological distress will also be measured at two years (approximately 18 months post-intervention), we will be able to investigate the longer term effects of counseling. We will calculate changes in psychological distress between the two-year assessment and post-risk appraisal. All women will have received counseling by the two-year follow-up, so we cannot evaluate the effect of counseling versus no counseling in this situation. We will test whether the mean change is zero. If the counseling is effective then we should detect significant differences between the two-year and post-risk appraisal measures. Maintenance in the women who received immediate counseling can also be investigated by comparisons with the 3-month assessment. We anticipate that a woman's perceived risk will have an impact on her level of psychological distress at all time points. Therefore, we will also incorporate effects of perceived risk into our modeling process, as we described above for the 3-month versus post-risk appraisal comparisons.

Hypothesis 2: Women who receive an appraisal that they are at a higher risk for breast cancer will comply better with screening recommendations than will women given low risk feedback. Because screening behavior recommendations for mammography, CBE and BSE differ slightly depending on the age group and risk status of women, whether or not a woman has adhered to the ACS recommendations for screening appropriate to her age and risk status will be evaluated. For each of the three screening behaviors, the association between risk group and compliance with screening recommendations will be assessed using categorical data analysis for the GHC representation. We anticipate that there will be increased compliance with higher risk of breast cancer. This will be assessed through use of tests for trend for the three screening modalities. Additionally, two-group comparisons (screening compliers / non-compliers) will be made, using the two-sample t-test.

We anticipate that conforming to screening recommendations will be greater following counseling. Logistic regression will be used to investigate the relation between following screening recommendations (yes/no) with time (baseline/two year assessment) and perceived risk. We anticipate that the odds of screening will be increased at the 2-year assessment and with greater perceived risk.

The analyses described above have focused on primary outcome variables. Other covariates such as age and education may have an effect on psychological distress and compliance with screening recommendations. We will incorporate these variables into our models as well to assess this possibility.

Hypothesis 3: Participants will have misperceptions of their personal breast cancer risk at baseline. Because the two measures of estimated risk, one derived from the Gail model and one derived from the GHC model, will also be used to assess perceived risk, we will be able to investigate the relation between perceived and estimated risk for these two measures. The estimated probability of getting breast cancer, as determined from the Gail model will be regressed on a woman's perceived probability of getting breast cancer. If women have accurate perceptions of their risk at baseline, the slope of the line should be 1. Because we anticipate that women who are at low risk tend to underestimate their risk of getting cancer and those at high risk tend to overestimate their risk, the slope should be greater than 1. Therefore, a test of the hypothesis that the slope is 1 will be performed to confirm that women have misperceptions about their own risk prior to risk appraisal feedback. For the GHC model, estimated and perceived risk will first be dichotomized. Women who fall in the higher risk and extreme low risk categories of estimated or perceived risk (categories 1,2, and 4) will be grouped together and women who fall in the non-extreme category (3) will be grouped together and a 2 x 2 table will be constructed. If women at lower risk tend to underestimate their risk and women at higher risk tend to overestimate their risk, then the number of women with non-extreme risk who perceive their risk as extreme will be large in comparison with the number of women with extreme risk who perceive their risk as non-extreme. (These are the off-diagonal frequencies in the 2 x 2 table.) McNemar's test will be used to assess the association between perceived and estimated risk. We will also investigate the relation between Champion's perceived risk scale and our two measures of perceived and estimated risk. Because Champion's scale is continuous, we will use regression and correlation for describing the relation between her scale and risk from the Gail model; one way analysis of variance will be used for associations with the GHC model.

Hypothesis 4: High risk appraisal will increase psychological distress. Psychological distress at post risk appraisal will be modeled as a function of psychological distress at baseline and the difference between baseline perceived risk and estimated risk using multiple regression. This will enable us to investigate the effect of the disparity between perceived and estimated risk on the impact of the distress. We anticipate that the coefficient for baseline distress will be positive, the coefficient for estimated risk will be positive and the coefficient for perceived minus estimated risk will be negative. We will consider various ways of measuring perceived and estimated risk for this analysis. Estimated risk will be determined from the Gail and GHC models and perceived risk will be determined from these two models and Champion's perceived breast cancer risk scale. When risk is categorized for the GHC representation, we will create 3 indicator variables for estimated risk for inclusion in the regression model.

Hypothesis 5: Participants' sense of coherence, coping style, other health-related behaviors, social support, and perceived quality of life will change over time depending on level of estimated risk. While our primary outcome measure is psychological distress, we will be taking measurements on a number of other variables, such as coherence, coping style, other health-related behaviors, social support, and perceived quality of life. We will perform the same analyses that we described above for Hypothesis 1 for these other variables. By comparing these measures at the 3-month assessment with the post-risk appraisal, we will be able to determine whether counseling has any short term effects on these measures. By also making comparisons between the 3-month and two-year assessments we will be able to investigate whether women made any changes in their coherence, coping style, social support, etc. as a result of the counseling and whether these were changes that were an immediate result of counseling or whether they took a while to establish. Also, the assessment at two years post-appraisal will enable us to investigate the maintenance of any changes that we made as a result of the counseling. For each of these variables, we will be able to assess the effectiveness of the treatment and its relation to perceived risk, estimated risk and on the discrepancy between perceived and estimated risk. These secondary outcomes will provide an opportunity to elaborate more fully women's reactions to risk appraisal and possible mediators of clinical outcomes. Such information can guide future interventions that specifically target groups of women in need of counseling and that focus interventions on their particular needs.

We anticipate that some women will drop out of the study. It is possible that women who learn that they are at lower risk of breast cancer may be more likely to drop out of the study. We will compare characteristics of women who do and do not drop out of the study.

Results Obtained based on Statement of Work

Hiring of personnel, purchase of equipment and supplies, development and testing of materials and intervention.

Personnel (nurse counselor, interviewer, data coding, entry, and management staff) have been hired and trained on study procedures to date. Recruitment and informational materials about the study have been developed (see Appendix). Supplementary health information materials have been identified and focus group work was conducted to determine those materials most relevant and acceptable to potential participants. Preliminary development and focus group efforts indicate that many women obtain their information and questions about health issues, and particularly about breast cancer, from mass media, that they prefer accurate, but simple (e.g., non-clinical) health messages, and that these women have a broad range of women's health concerns (which come up as they consider and discuss breast health and breast cancer risk).

Intervention materials for both the nurse counselor and participant were under development in year 1. These materials and intervention strategies were still in the process of being finalized at the end of year 1 to ensure their relevance, accuracy, and quality. The intervention content and materials are being developed, evaluated, and revised based on appropriate literature, expert consultation, focus group input (separate from that used to determine acceptable health information), and its implementation with initial study participants. As the study moves into year 2, the focus is to finalize these materials and format and print them so that they are professional in appearance and clear in their message and contact. Preliminary intervention materials are contained in the Appendix. Appropriate audiovisual materials (posters, handouts) for the intervention sessions are also being finalized.

Recruitment and screening of participants; Baseline Assessment packets mailed out and returned.

A decision was made to recruit women only between the ages of 50 and 85 (rather than 40-85), based on the lack of scientific consensus about appropriate recommendations for mammography screening intervals for

women 40-49. This decision to change the participant age range allowed more time for development and testing of intervention materials and strategies without limiting the time allotted to the ascertainment of outcomes (i.e., the final ascertainment for appropriate breast cancer screening behaviors, including annual mammography, will occur at 18 months post-intervention or 2 years after entry in the study), rather than the 2-year follow-up contact after the group counseling sessions originally proposed.

Initial contacts have been made with appropriate physician offices and clinics that have agreed to display information about the study (see Appendix). In addition, names of age-eligible participants have been obtained from other FHCRC studies, and preliminary contacts are being made to provide information about the current study and to assess their interest. Recruitment and mailing of baseline assessment packets has, however, been delayed to ensure high-quality intervention materials and strategies.

Risk Assessment runs completed and Breast Cancer Risk Appraisal Reports printed for each participant; Risk Appraisal Feedback sessions conducted

Procedures and materials for risk assessment runs and risk appraisal feedback sessions are being finalized to ensure they are appropriate and understandable (see explanation above and draft in Appendix). The decision to change the age eligibility criterion has allowed more time for this type of development with strategic delay in conducting actual participant risk appraisal sessions.

Immediate Post-Appraisal Packets mailed out and returned.

The post-appraisal questionnaire packets have been finalized and printed. Mailing and tracking strategies and programs have also been finalized. The actual implementation of these packets has been delayed as described above.

Psychosocial Group Counseling Intervention conducted with early and delayed treatment participants.

Psychosocial group counseling intervention session materials and strategies are being finalized. The psychosocial group counseling intervention session materials and strategies will be implemented with initial participants, with some revision anticipated to enhance relevance and accuracy.

Table 1. Breast Risk Assessment Categories from Group Health Cooperative of Puget Sound

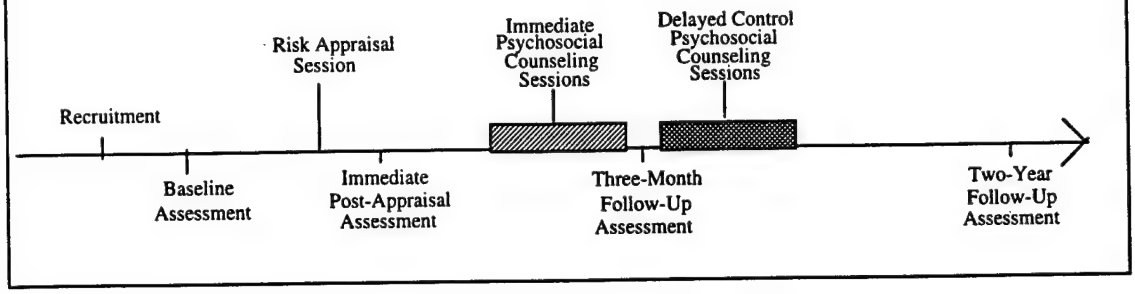
Risk Category	Risk Factors		Relative Risk
	Women 40-49	Women 50+	
Level 1 (highest)	Prior breast cancer, 2 1st-degree relatives with breast cancer	Same	4-14
Level 2	1 1st-degree relative with breast cancer	1 1st-degree relative or 2 minor risk factors*	1.9-3.5
Level 3	≥1 minor risk factor*	All other women	1.2-1.9
Level 4 (lowest)	All other women	Not applicable	1.0

*Minor risk factors: 2nd degree relative with breast cancer, early menarche (age 10), late menopause (age 55), 1st birth after age 30 or nulliparity, previous breast biopsy for benign disease. Adapted from 51

Table 2 Timeline for Construct Measurement

	Baseline	Immediate post-appraisal	Three-month follow-up	Two-year follow-up
Estimated risk	*			update
Perceived risk	*	*	*	*
Psychological distress	*	*	*	*
Breast cancer screening	*			*
Sense of coherence	*	*	*	*
Coping style	*		*	*
Other health-related behaviors	*			*
Social Support	*		*	*
Quality of life	*		*	*

Figure 1. Participant Timeline



CONCLUSIONS

Summary Implications of Completed Work

Completed work in year 1 has focused primarily on start-up and development activities with careful attention to ensuring that materials and strategies are accurate, appropriate, and acceptable to age-eligible women (see Appendix). The start-up timeline, therefore, has been extended to allow for more careful initial development and evaluation of these materials. Careful attention has been focused on the short-term nature of the intervention and strategies to assure its integration into participants lives over the long-term. Focus groups conducted about both health information materials and group counseling strategies have helped guide the intervention. Based on this information, health information pamphlets are being obtained that provide some basic women's health information in addition to breast cancer and breast health information. "Question and Answer" guidelines are being developed for the nurse counselor to respond to other questions that might come up as well as to turn group members and the session discussions back toward the primary focus of the study--breast cancer and breast cancer screening.

Recommended Changes to Future Work to Better Address Problems

Initial year 2 activities will be focused on finalizing and printing the intervention materials. The year 1 effort toward development and start-up has meant that efforts in year 2 and beyond will be stepped up to ensure that study timelines are met. Mock group psychosocial counseling sessions will also be conducted early in year 2 to work through group process and the delivery of the intervention information. Initial recruitment and intervention activities will provide preliminary data for any further material revisions.

Statement of work for year 2 and beyond:
Although the start-up and development timeline was extended to enhance the intervention, it is anticipated that we will have data for conducting the study analyses within the revised timelines identified below. Final analysis will be completed within the grant period, based on the shift in age eligibility and the need to ascertainment outcomes of annual (versus biannual) mammograms.

14 to 20 months: Recruitment and screening of participants; Baseline Assessment packets mailed out and returned.

15 to 26 months: Risk Assessment runs completed and Breast Cancer Risk Appraisal Reports printed for each participant; Risk Appraisal Feedback sessions conducted

16 to 28 months: Immediate Post-Appraisal Packets mailed out and returned.

18 to 24 months: Psychosocial Group Counseling Intervention conducted with early and delayed treatment participants.

22 to 28 months: Analysis of baseline risk perceptions (Hypothesis #1).

24 to 30 months: Analysis of risk appraisal feedback session reactions (Hypothesis #2).

28 to 34 months: Analysis of psychosocial group counseling intervention reactions (Hypothesis #3)

20 to 30 months: 3-Month Follow-Up Assessment packets mailed out and returned.

36 to 44 months: 2-Year Follow-Up (18-months post-enrollment) Assessment packets mailed out and returned.

42 to 48 months: Analysis of impact of interventions on screening behaviors (Hypothesis #4). Final data analysis and preparation of final report.

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Appendix

Timetable

Timetable for SRSS Requirements and Responsibilities

Tentative Dates for First Groups	Item	Activity	What SRSS needs before this date	What SRSS will do/provide
5/8/96		Mailing to WHI sample	Sample--in electronic or scannable form Recruitment brochure and postcard Cover Letter Mailing envelopes with postage imprint	Print Labels Assemble recruitment packets and mail Personalize cover letter
5/8/96	A	Receipt of Call	Access information for voice mail number	Record VM messages. Tracking: Login respondents, produce SCRs (Simplified Call Records).
5/15//96	B	Screening/Scheduling	Screening script Answers to questions participants may ask Details about screening questions Ind. Session slots for scheduling (from GZ)	Interviewers will begin calling respondents *Projected questions participants may ask *Projected screening difficulties Ci3 screens to screen and record addresses and individual appointments Schedule participants, notify GZ
5/22/96	C	Packet 1 Mailed	Cover letter Map and parking information for days/eves 9x12 envelopes with postage imprint Questionnaire Booklet 1 returned at individual meeting and reviewed by nurse counselor	Print labels Assemble and mail packet Tracking: Label printing, 'tickling' daily reports for reminders about packet assembly, etc., weekly status reports, i.e., fully functional tracking system.
6/3/96	D	Reminder call	Approval of Ind Session reminder call script	*Draft of Ind. Session reminder call script Interviewers will call and remind of appt.
6/5/-6/19/96	E	Individual Sessions	Packet 2 materials to Ns Counselor: Cover letter, questionnaire booklet 2, 9x12 stamped return envelopes	Assemble packets
	F	Receipt of packets 1 - completed materials		Packets will be logged in daily, edited for data entry & keyed in later using Rode-pc

Timetable for SRSS Requirements and Responsibilities

Tentative Dates for First Groups	Item	Activity	What SRSS needs before this date	What SRSS will do/provide
6/12/96	G	Reminders/thank yous	Reminder/Thank you postcard Stamps	Print labels Mail postcards
6/19/96	H	Telephone reminders	Packet 2 reminder script approval	*Draft of packet 2 reminder script
6/12/96	I, J	Receipt of packet 2	Need return envelopes to be addressed to SRSS	Packets will be logged in daily, edited for data entry & keyed in promptly - 2nd pkt will receive edit callbacks for missing vital information so ppt can be randomized Randomize participants and schedule for group sessions (intervention or control)
6/31/96	K	Grp session reminder		Ns counselor will call and remind
7/2/ (9,16,23)	L	Immed. group sessions		
8/15/96	M	Packet 3 mailed	Cover letter for packet 3 Questionnaire booklet 3 9x12 mailing envelopes with postage imprint 9x12 stamped return envelopes	Print labels Assemble and mail packets
8/25/96	N	Reminder/Thank yous	Reminder/Thank you postcards for pkt 3 stamps	Print labels Mail postcards
8/29/96	O	Telephone Reminders		Interviewers will call & remind to send
8/22/96	P	Receipt of packet 3		Packets will be logged in daily, edited for data entry & keyed in later - 3rd pkt will receive edit callbacks for missing vital information
Tentative Dates for First Groups	Item	Activity	What SRSS needs before this date	What SRSS will do/provide

8/10/96	new	Tel remind re grp ses.		Ns counselor will call and remind
8/12 (19, 26, 9/2)	Q	Delayed group sessions		
5/12/98	R	Packet 4 mailed	Cover letter Questionnaire booklet 4 9x12 mailing envelopes with postage imprint 9x12 stamped return envelopes	Print labels Assemble and mail packets
5/12/98	S	Reminder/Thank you	Reminder/Thank you postcard for pkt 4 stamps	Print labels Mail postcards
5/19/98	T	Telephone reminder		Interviewers will call and remind to send
5/12/98 and on	U	Receipt of packet 4	**Possible remail (?)** Thank you letter to participants stamps (& envelopes?)	Packets will be logged in daily, edited for data entry & keyed in later - 4th pkt will receive edit callbacks for missing vital information Print labels Mail thank yous

Description of Tracking System

Breast Cancer Awareness: Tracking System

The tracking system has been programmed to serve the following functions:

- Adds newly recruited participants from contact log
- Tracks receipt of questionnaires
- Tracks appointments for individual and group session
- Cues mailing of packets, reminder calls according to appointment dates with daily list printout
- Runs labels for those needing mailings
- Performs mail merge for personalized letters

Study Brochure

Questions? How Do I Join the Study?

If you think you would like to participate, either complete the postage-paid reply card and drop it in the mail, or call us at 667-5283 and leave your name and telephone number. One of our interviewers will then give you a call within the next few weeks to tell you about the study and schedule a meeting with the nurse counselor.

We hope you'll join us!

Breast Cancer
Awareness Program
1730 Minor Ave., MP-1002
Seattle, WA 98101
(206) 667-5283

FRED HUTCHINSON CANCER RESEARCH CENTER

What Do I Need to Know About Breast Cancer?

1) ***Most women never get breast cancer.*** In fact, almost 90% of women will *never* develop this disease.

2) ***Most women who do get breast cancer survive.*** In fact, three out of four women who get breast cancer *do not* die from the disease.

3) ***Breast cancer is primarily a disease of older women.*** Only 20% of breast cancers occur in women under age 50. The most common ages at which women develop breast cancer are their late sixties and older.

4) ***Early detection can save your life.*** The single most important factor in whether or not a woman survives breast cancer is how big the cancer is when it is found. This means that by practicing methods of early detection *you* have some control over surviving a breast cancer experience.

Breast Cancer Awareness

Learning About Your Risk

What is the Breast Cancer Awareness Program?

The Breast Cancer Awareness Program is a new research study at the Fred Hutchinson Cancer Research Center designed to help women like you learn more about:

- Breast cancer and its risk factors
- Your own personal risk for developing breast cancer
- Early detection and screening for breast cancer
- Ways of dealing with worries about developing breast cancer
- The latest research on breast cancer prevention

If you are 50 years of age or older and have never had breast cancer, we invite you to join the Breast Cancer Awareness Program!

What Will I Be Expected to Do?

If you decide to participate, you will be asked to:

- Meet with our nurse counselor, who, based on the latest cancer research findings, will give you information about your personal risk for developing breast cancer
- Participate in four group sessions held at our study center downtown
- Complete study questionnaires about your health, thoughts, and feelings at four times during the study:
    1) Before your personal breast cancer risk session
    2) At the first of the four group sessions
    3) After the last of the four group sessions
    4) Two years after your participation in the group sessions

What Happens During the Group Sessions?

During the four group sessions, you will meet with a nurse counselor and 8-10 other women to increase your awareness and learn more about your risk of breast cancer.

Specifically, you will learn about risk factors for breast cancer, early detection and screening, and ways of coping with concerns you may have about developing breast cancer. The sessions, which last for about two hours each, will meet once a week for one month.

All of the counseling and group sessions are free-of-charge, and free parking and refreshments will be provided.

Letter to Providers

March 5, 1996

Mena Hippert
1101 Madison Suite 1150
Seattle, WA 98104

Dear Ms. Hippert,

I am writing to tell you about an exciting new study, Breast Cancer Awareness: Learning About Your Risk, being carried out at the Fred Hutchinson Cancer Research Center that may be of interest to some of your patients between 50 and 79 years of age. This is a study about enhancing positive reactions to breast cancer risk appraisal for women. Participants will learn more about their personal risk of breast cancer and strategies for managing that risk.

Based on the latest cancer research findings, participants will be provided with a scientific estimate of their risk for developing breast cancer. They will then participate in four group sessions to learn even more about breast cancer and its risk factors, prevention and screening for breast cancer, and ways of dealing with worries or concerns they might have about this risk. Finally, they will be contacted two years after joining the study so that we can learn more about the impact of this new knowledge on their health and health practices.

We would appreciate your review of the enclosed brochure. We will be contacting you so that we can obtain your permission to place these brochures in your office for patients who might like to learn more about this important study. If you have any questions about the study, please feel free to contact one of us at the number below. Thanks for your interest in breast cancer research.

Sincerely,

Barbara Cochrane, RN, PhD
Principal Investigator

Gretchen Zunkel, ARNP
Nurse Counselor
667-4095

List of Providers

Breast Cancer Awareness

Brochure Placement Log

Contact Information	Initial Contact	Letter mailed	Phone follow-up	Mailing Date	Follow-up visit	Brochure #s placed
Pamela VanPelt, ARNP 363-4555 North Seattle Women's Group 1560 N 115th Suite 212 Seattle, WA 98104	Phone contact 1/10/96	Feb-96	3/6 OK to place brochures	Mailed 3/28		100-115--3/28
Mena Hippert, Clinic Manager 386-3400 1101 Madison Suite 1150 Seattle, WA 98104	Phone contact 1/10/96	Feb 96 and remailed 3/28	3/4 will run it by doctors--remail	Delivered 4/15	4/15 Not able to speak with Ms. Hippert	1100-1114--4/15
Colae Migge 326-4123 Mailed to: Ramona Schaffer @ Diagnostic Imaging Department Pacific Medical Center 1200 12th Ave S, Seattle, WA 98144	Phone contact 1/8/96	Feb-96	3/5 OK to place brochures	Mailed 3/28		North: 200-210 Totem Lake: 240-50 Beacon Hill: 270-80 3/28
Dr. Ellen Lackerman 326-2400 Pacific Medical Center Primary Care 1200 12th Ave S Seattle, WA 98144		Feb-96	3/5 OK to place brochures	Mailed 3/28		300-315--3/28
Sandra Jozlowski 320-2766 Providence Medical Center Healthcare for Women 1600 E Jefferson Suite 305 Seattle, WA 98122	Phone contact 1/8/96	Feb-96	3/5 OK to place brochures	Mailed 3/28	4/15 on a conference call	400-415--3/28
Marcie Crist 320-3818 Providence MC Comprehensive Breast Center 550 16th Ave Suite 400 Seattle, WA 98122	Phone contact 1/8/96	Feb-96	3/5 OK--talk to Cori or Michael and deliver	4/15 delivered	Spoke to Cori 4/15	500-515--4/15
Radiology Clinic--spoke to receptionist Providence Medical Center 1600 E Jefferson Seattle, WA 98122	In-person 4/15			4/15 delivered		No reply cards included--just dropped off a few brochures

Breast Cancer Awareness

Brochure Placement Log

Contact Information	Initial Contact	Letter mailed	Phone follow-up	Mailing Date	Follow-up visit	Brochure #s placed
Steve Larson 292-2200 Clinic Manager Seattle Women's Clinic 801 Broadway Suite 511 Seattle, WA 98122	Phone contact 1/10/96	Feb 96 and remailed 4/4	4/1 Sounds good but remail	4/15 delivered	Not available--delivered	1000-1013--4/15
Molly Ramage, Manager 386-6111 Swedish Medical Center Family Practice Clinic 1101 Madison Suite 200 Seattle, WA 98104	Phone contact 1/8/96	Feb-96	4/1 OK to place brochures	Mailed 4/4	On vacation 4/15	700-715--4/40
Jan Grosso, Clinic Manager UW Mammograpy Center 1959 NE Pacific Ave Seattle, WA 98195	Phone contact 1/8/96	Feb-96	4/1 spoke with Marian Drucker -OK, mail to Jan Grosso	Mailed 4/4	Spoke to her 4/15	800-815--4/4
Grace Parker, RN 548-5500 UW Women's Care Center UWMC-Roosevelt Roosevelt Way NE Seattle, WA 98105	Phone contact 1/8/96	Feb-96	4/8 OK to place brochures	Delivered 4/15	Not available 4/15	900-914--4/15
Dawn Lemcke, MD 223-7500 V Mason Center for Women's Health PO Box 900 Seattle, WA 98111 Street Address?	Phone Contact 1/8/96	Feb-96				
Tessa Machle 635-7250 or 223-6851 Virginia Mason Mammography Center PO Box 900 Seattle, WA 98111 Street Address?	Phone Contact 1/8/96	Feb-96	3/96 OK to place brochures	Mailed 3/28		600-615--3/28

Telephone Script

Telephone Script for Recruitment Calls

Introduction

This is _____ from the Fred Hutchinson Cancer Research Center.
In the past, you have told researchers here that you might be intereseted in participating in cancer prevention projects. We are currently recruiting women to join a new project which is designed to increase Breast Cancer Awareness.

OR

We received the card you sent expressing your interest in the Breast Cancer Awareness Project.

OR

I'm returning your call regarding the Breast Cancer Awareness Project.

Screening Questions

Before I tell you about the project, I'd like to ask you a couple questions.
First, what is your age? (Needs to answer 50 to 79 to be eligible.)
Second, have you ever been told that you have breast cancer? (needs to say no)

If not eligible: I'm sorry but you are not eligible for our study. Thank you for your interest in breast cancer research.

If eligible: Great! It sounds like you are eligible for our study. I'd like to tell you alittle bit about the study to help you see if you might be interested in joining. Is now a good time?

Study Description

The purpose of the Breast Cancer Awareness Study is to look at breast cancer risk for women between the age of 50 and 79. If you agree to participate, you will learn more about your own personal risk of developing breast cancer and strategies for managing your risk.

First we'll mail you some questionnaires about your health, thoughts and feelings. We'll ask you to fill these out and bring them with you when you come in for your private session with our nurse counselor. She will provide you with an estimate of your risk for developing breast cancer, based on the lastest cancer research findings. She'll also give you another packet of questionnaires to be filled out and returned to us.

You will then participate in four group sessions which will last about two hours each, meeting every week for 4 weeks. You would need to attend each of these four meetings. During these sessions you'll meet with a health counselor and a group of 6 to 10 other women, to discuss strategies for prevention and early detection of breast cancer, and ways of dealing with worries or concerns you may have. A third set of questionnaires will be mailed to you around this time, and finally, we'll mail you a follow-up set of questionnaires in two years.

Do you have any questions about this study?

Are you interested in participating?

If yes,

Great, I can schedule the risk appraisal session and send you the first packet of questionnaires.
Could I have your address please?

Thank you very much for joining our study. We appreciate your interest in breast cancer research.

If no,

Thank you for your time. We appreciate your interest in breast cancer research.

Questionnaire Packet # 1

INSTRUCTIONS

- Please try to answer every question in the booklet (unless you are asked to skip questions because they don't apply to you). Some questions may look alike, but each one is different. If answering a particular question makes you uncomfortable, you may skip that question.

- Answer the questions by checking the appropriate box, circling the appropriate number, or filling in the answer as requested.

- If you are not sure about how to answer a question, please give the best answer you can and make a comment in the left margin. In addition, feel free to list comments, suggestions, or questions on the "Comment Page" located at the end of the booklet. We will read all your comments, so feel free to make as many as you wish.

- All your responses will be kept completely confidential. Questions are for study purposes only, and your name will never be linked with any of your responses.

- It may take you a while to complete the entire booklet. Do not feel that you have to complete it all in one sitting. Feel free to take a break and come back to it later.

- When you have completed the questionnaire, please remember to bring it with you to your breast cancer risk assessment session with the nurse counselor. If you have any questions about the booklet, she will be glad to answer your questions at that time.

Thank you for your participation in the Breast Cancer Awareness Program.

We look forward to meeting you!

BACKGROUND

The first set of questions ask about background information. Please answer each item by checking the appropriate box or filling in the blanks.

1. **What is your ethnicity?**
   - ☐1 Caucasian
   - ☐2 Hispanic
   - ☐3 Asian American
   - ☐4 African American
   - ☐5 Native American
   - ☐6 Other _____

2. **What is your marital status?**
   - ☐1 Single, never married
   - ☐2 Single, divorced
   - ☐3 Single, separated
   - ☐4 Widowed
   - ☐5 Partnered, living together
   - ☐6 Married

3. **What is the highest educational degree you have received?**
   - ☐1 No high school degree
   - ☐2 High school graduate or GED
   - ☐3 Some college
   - ☐4 2-year college degree or trade degree
   - ☐5 4-year college degree
   - ☐6 Master's degree
   - ☐7 Doctoral degree
   - ☐8 Other_____

4. **Which of the following best describes your current job status?**
   - ☐1 Employed full-time
   - ☐2 Employed part-time
   - ☐3 Other_____

5. **What is your current occupation? Please describe your job.** (If you are not working, what was your previous occupation?)

6. **What is your spouse's/partner's current occupation and job description?**

7. **What percent of your immediate family's income comes from you?**
   - ☐1 0%
   - ☐2 10%
   - ☐3 20%
   - ☐4 30%
   - ☐5 40%
   - ☐6 50%
   - ☐7 60%
   - ☐8 70%
   - ☐9 80%
   - ☐10 90%
   - ☐11 100%

8. **What is your household's total income (before taxes) from all sources?**
   - ☐1 under $10,000
   - ☐2 $10,000-19,999
   - ☐3 $20,000-29,999
   - ☐4 $30,000-39,999
   - ☐5 $40,000-59,999
   - ☐6 $60,000-79,999
   - ☐7 $80,000-99,999
   - ☐8 $100,000 or more

BREAST CANCER RISK ASSESSMENT

The next questions ask for information that may relate to your risk of developing breast cancer. This information will be used to evaluate your risk of developing breast cancer. Please check the appropriate box or fill in the information requested.

I. DATE OF BIRTH

|_|_| |_|_| |_|_|
(mo) (day) (year)

II. FAMILY HISTORY *(include only your biological mother, daughter(s), and sister(s))*

If adopted, check here ☐ *and leave blank any questions you cannot answer.*

Has your mother had breast cancer?

☐$_1$ Yes ☐$_2$ No ☐$_3$ Unknown

Have any of your daughter(s) had breast cancer?

☐$_1$ Yes ☐$_2$ No
☐$_3$ Not applicable/Unknown

IF YES, how many daughters have had breast cancer? _____

Have any of your sister(s) had breast cancer?

☐$_1$ Yes ☐$_2$ No
☐$_3$ Not applicable/unknown

IF YES, how many sisters have had breast cancer? _____

IV. HISTORY OF BREAST BIOPSY

Has a physician ever removed tissue from your breast (done a biopsy)?

☐$_1$ Yes ☐$_2$ No

IF YES, how many? _____

IV. REPRODUCTIVE HISTORY

How old were you when you had your first menstrual period?

|_|_| years old

Have you ever been pregnant?

☐$_1$ Yes ☐$_2$ No

IF YES:

How many times have you been pregnant?

|_|_| times

How many live births have you had?

|_|_| live births

How old were you at the time of your first live birth?

|_|_| years old

WELL-BEING

The next several questions ask about your general well-being and your thoughts and feelings.

1. For each of the following, please circle the number that represents how you feel about your life in general.

	Poorer than most									Very much better than most
a. My life as a whole	1	2	3	4	5	6	7	8	9	10
b. My accomplishments so far	1	2	3	4	5	6	7	8	9	10
c. My experience of happiness	1	2	3	4	5	6	7	8	9	10
d. My opportunities to enjoy life	1	2	3	4	5	6	7	8	9	10
e. My experience of love	1	2	3	4	5	6	7	8	9	10
f. My family relationships	1	2	3	4	5	6	7	8	9	10
g. My respect from others	1	2	3	4	5	6	7	8	9	10
h. My future opportunities	1	2	3	4	5	6	7	8	9	10
i. My experience of friendship	1	2	3	4	5	6	7	8	9	10
j. My time to do what I want	1	2	3	4	5	6	7	8	9	10

2. Please share any further thoughts you may have on your feelings about your life.

PERSONAL RESOURCES

Below are some statements with which some people agree and others disagree. Please read each statement and check the response most appropriate to you. There is no right or wrong answer.

STATEMENTS	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. There is someone I feel close to who makes me feel secure.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
2. I belong to a group in which I feel important.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
3. People let me know that I do well at my work (job, homemaking).	☐1	☐2	☐3	☐4	☐5	☐6	☐7
4. I can't count on my relatives and friends to help me with problems.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
5. I have enough contact with the person who makes me feel special.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
6. I spend time with others who have the same interests that I do.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
7. There is little opportunity in my life to be giving and caring to another person.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
8. Others let me know that they enjoy working with me (job, committees, projects).	☐1	☐2	☐3	☐4	☐5	☐6	☐7
9. There are people who are available if I need help over an extended period of time.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
10. There is no one to talk to about how I am feeling.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
11. Among my group of friends we do favors for each other.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
12. I have the opportunity to encourage others to develop their interests and skills.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

STATEMENTS	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
13. My family lets me know that I am important for keeping the family running.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
14. I have relatives or friends who will help me out if I can't pay them back.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
15. When I am upset there is someone I can be with who lets me be myself.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
16. I feel no one has the same problems as I.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
17. I enjoy doing little "extra" things that make another's life more pleasant.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
18. I know that others appreciate me as a person.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
19. I have people to share social events and fun activities with.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
20. There is someone who loves and cares about me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
21. I am responsible for helping provide for another person's needs.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
22. If I need advice there is someone who would assist me to work out a plan for dealing with the situation.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
23. I have a sense of being needed by another person.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
24. People think that I am not as good a friend as I should be.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
25. If I got sick there is someone to give me advice about caring for myself.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

QUALITY OF LIFE — SATISFACTION

For each of the following, please choose the answer that best describes how satisfied you are with that area of your life. If none of the answers fit exactly, pick the answer that comes closest to how you feel. Please mark your answer by checking the box. Please try to answer all the questions that apply to you. There are no right or wrong answers.

HOW SATISFIED ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
1. Your health?	☐1	☐2	☐3	☐4	☐5	☐6
2. The health care you are receiving?	☐1	☐2	☐3	☐4	☐5	☐6
3. The amount of pain that you have? (If you have no pain, how satisfied are you with that?)	☐1	☐2	☐3	☐4	☐5	☐6
4. The amount of energy you have for everyday activities?	☐1	☐2	☐3	☐4	☐5	☐6
5. Your physical independence (ability to do things for yourself, get around)?	☐1	☐2	☐3	☐4	☐5	☐6
6. The amount of control you have over your life?	☐1	☐2	☐3	☐4	☐5	☐6
7. Your potential to live a long time?	☐1	☐2	☐3	☐4	☐5	☐6
8. Your family's health?	☐1	☐2	☐3	☐4	☐5	☐6
9. Your children?	☐1	☐2	☐3	☐4	☐5	☐6
10. Your family's happiness?	☐1	☐2	☐3	☐4	☐5	☐6
11. Your relationship with your spouse/significant other?	☐1	☐2	☐3	☐4	☐5	☐6
12. Your sex life?	☐1	☐2	☐3	☐4	☐5	☐6
13. Your friends?	☐1	☐2	☐3	☐4	☐5	☐6
14. The emotional support you get from others?	☐1	☐2	☐3	☐4	☐5	☐6

HOW SATISFIED ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
15. Your ability to meet family responsibilities (things you have to do for your family)?	☐1	☐2	☐3	☐4	☐5	☐6
16. Your usefulness to others?	☐1	☐2	☐3	☐4	☐5	☐6
17. The amount of stress or worries in your life?	☐1	☐2	☐3	☐4	☐5	☐6
18. Your home (furniture, house or apartment)?	☐1	☐2	☐3	☐4	☐5	☐6
19. Your neighborhood?	☐1	☐2	☐3	☐4	☐5	☐6
20. Your standard of living?	☐1	☐2	☐3	☐4	☐5	☐6
21. Your job? (if employed)	☐1	☐2	☐3	☐4	☐5	☐6
22. Not having a job? (if not employed, retired, or disabled)	☐1	☐2	☐3	☐4	☐5	☐6
23. Your education?	☐1	☐2	☐3	☐4	☐5	☐6
24. Your financial independence?	☐1	☐2	☐3	☐4	☐5	☐6
25. Your leisure time activities?	☐1	☐2	☐3	☐4	☐5	☐6
26. Your ability to travel on vacations?	☐1	☐2	☐3	☐4	☐5	☐6
27. Your potential for a happy old-age retirement?	☐1	☐2	☐3	☐4	☐5	☐6
28. Your peace of mind?	☐1	☐2	☐3	☐4	☐5	☐6
29. Your personal faith in God?	☐1	☐2	☐3	☐4	☐5	☐6
30. Your achievement of personal goals?	☐1	☐2	☐3	☐4	☐5	☐6
31. Your happiness in general?	☐1	☐2	☐3	☐4	☐5	☐6
32. Your life in general?	☐1	☐2	☐3	☐4	☐5	☐6
33. Your personal appearance?	☐1	☐2	☐3	☐4	☐5	☐6
34. Yourself in general?	☐1	☐2	☐3	☐4	☐5	☐6

QUALITY OF LIFE — IMPORTANCE

Now, for each of the following, please choose the answer that best describes how important that area of your life is to you. If none of the answers fit exactly, pick the answer that comes closest to how you feel. Please mark your answer by checking the box. Please try to answer all the questions that apply to you. There are no right or wrong answers.

HOW IMPORTANT:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
1. Is your health to you?	☐1	☐2	☐3	☐4	☐5	☐6
2. Is health care to you?	☐1	☐2	☐3	☐4	☐5	☐6
3. Is it to you to be completely free of pain?	☐1	☐2	☐3	☐4	☐5	☐6
4. Is it to you to have enough energy for everday activities?	☐1	☐2	☐3	☐4	☐5	☐6
5. Is your physical independence (ability to do things for yourself, get around) to you?	☐1	☐2	☐3	☐4	☐5	☐6
6. Is it to you to have control over your life?	☐1	☐2	☐3	☐4	☐5	☐6
7. Is living a long time to you?	☐1	☐2	☐3	☐4	☐5	☐6
8. Is your family's health to you?	☐1	☐2	☐3	☐4	☐5	☐6
9. Are your children to you?	☐1	☐2	☐3	☐4	☐5	☐6
10. Is your family's happiness to you?	☐1	☐2	☐3	☐4	☐5	☐6
11. Is your relationship with your spouse or significant other to you?	☐1	☐2	☐3	☐4	☐5	☐6
12. Is your sex life to you?	☐1	☐2	☐3	☐4	☐5	☐6
13. Are your friends to you?	☐1	☐2	☐3	☐4	☐5	☐6
14. Is emotional support to you?	☐1	☐2	☐3	☐4	☐5	☐6

HOW IMPORTANT:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
15. Is meeting family responsibilities to you (things you have to do for your family)?	☐1	☐2	☐3	☐4	☐5	☐6
16. Is being useful to others to you?	☐1	☐2	☐3	☐4	☐5	☐6
17. Is it to you to have a reasonable amount of stress or worries?	☐1	☐2	☐3	☐4	☐5	☐6
18. Is your home to you (furniture, house or apartment)?	☐1	☐2	☐3	☐4	☐5	☐6
19. Is your neighborhood to you?	☐1	☐2	☐3	☐4	☐5	☐6
20. Is a good standard of living to you?	☐1	☐2	☐3	☐4	☐5	☐6
21. Is your job (or working) to you? (if employed)	☐1	☐2	☐3	☐4	☐5	☐6
22. Would it be to you to have a job? (if not employed, retired, or disabled)	☐1	☐2	☐3	☐4	☐5	☐6
23. Is your education to you?	☐1	☐2	☐3	☐4	☐5	☐6
24. Is your financial independence to you?	☐1	☐2	☐3	☐4	☐5	☐6
25. Are leisure-time activities to you?	☐1	☐2	☐3	☐4	☐5	☐6
26. Is the ability to travel on vacations to you?	☐1	☐2	☐3	☐4	☐5	☐6
27. Is having a happy old age/retirement?	☐1	☐2	☐3	☐4	☐5	☐6
28. Is peace of mind to you?	☐1	☐2	☐3	☐4	☐5	☐6
29. Is your personal faith in God to you?	☐1	☐2	☐3	☐4	☐5	☐6
30. Is achieving your personal goals to you?	☐1	☐2	☐3	☐4	☐5	☐6
31. Is happiness to you?	☐1	☐2	☐3	☐4	☐5	☐6

HOW IMPORTANT:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
32. Is it to you to be satisfied with life?	☐1	☐2	☐3	☐4	☐5	☐6
33. Is your personal appearance to you?	☐1	☐2	☐3	☐4	☐5	☐6
34. Are you to yourself?	☐1	☐2	☐3	☐4	☐5	☐6

QUALITY OF LIFE

1. How would you rate your current quality of life? *(Circle one number.)*

Poor 1 2 3 4 5 6 7 8 9 10 **Excellent**

What kinds of things were you considering in your answer?

2. How would you rate your satisfaction with your quality of life? *(Circle one number.)*

Not at all satisfied 1 2 3 4 5 6 7 8 9 10 **Very satisfied**

What kinds of things were you considering in your answer?

COPING

The items below represent ways that people cope with problems or stress. We are interested in the degree to which you have used each of these thoughts or behaviors to deal with your problems or stress. Please check the appropriate box if the thought/behavior was never used; rarely used; sometimes used; or regularly used (at least 4 to 5 times per week).

THOUGHTS/BEHAVIORS	Never Used	Rarely Used	Sometimes Used	Regularly Used
1. Bargained or compromised to get something positive from the situation.	☐1	☐2	☐3	☐4
2. Counted my blessings.	☐1	☐2	☐3	☐4
3. Blamed myself.	☐1	☐2	☐3	☐4
4. Concentrated on something good that could come out of the whole thing.	☐1	☐2	☐3	☐4
5. Kept my feelings to myself.	☐1	☐2	☐3	☐4
6. Figured out who to blame.	☐1	☐2	☐3	☐4
7. Hoped a miracle would happen.	☐1	☐2	☐3	☐4
8. Asked someone I respected for advice and followed it.	☐1	☐2	☐3	☐4
9. Prayed about it.	☐1	☐2	☐3	☐4
10. Talked to someone about how I was feeling.	☐1	☐2	☐3	☐4
11. Stood my ground and fought for what I wanted.	☐1	☐2	☐3	☐4
12. Refused to believe that it had happened.	☐1	☐2	☐3	☐4
13. Criticized or lectured myself.	☐1	☐2	☐3	☐4
14. Took it out on others.	☐1	☐2	☐3	☐4
15. Came up with a couple of different solutions to the problem.	☐1	☐2	☐3	☐4
16. Wished I were a stronger person—more optimistic and forceful.	☐1	☐2	☐3	☐4

THOUGHTS/BEHAVIORS	Never Used	Rarely Used	Sometimes Used	Regularly Used
17. Accepted my strong feelings, but didn't let them interfere with other things too much.	☐1	☐2	☐3	☐4
18. Focused on the good things in my life.	☐1	☐2	☐3	☐4
19. Wished that I could change the way that I felt.	☐1	☐2	☐3	☐4
20. Changed something about myself so that I could deal with the situation better.	☐1	☐2	☐3	☐4
21. Accepted sympathy and understanding from someone.	☐1	☐2	☐3	☐4
22. Got mad at the people or things that caused the problem.	☐1	☐2	☐3	☐4
23. Slept more than usual.	☐1	☐2	☐3	☐4
24. Spoke to my clergy about it.	☐1	☐2	☐3	☐4
25. Realized I brought the problem on myself.	☐1	☐2	☐3	☐4
26. Felt bad that I couldn't avoid the problem.	☐1	☐2	☐3	☐4
27. I knew what had to be done, so I doubled my efforts and tried harder to make things work.	☐1	☐2	☐3	☐4
28. Thought that others were unfair to me.	☐1	☐2	☐3	☐4
29. Daydreamed or imagined a better time or place than the one I was in.	☐1	☐2	☐3	☐4
30. Tried to forget the whole thing.	☐1	☐2	☐3	☐4
31. Got professional help and did what they recommended.	☐1	☐2	☐3	☐4
32. Changed or grew as a person in a good way.	☐1	☐2	☐3	☐4
33. Blamed others.	☐1	☐2	☐3	☐4
34. Went on as if nothing had happened.	☐1	☐2	☐3	☐4
35. Accepted the next best thing to what I wanted.	☐1	☐2	☐3	☐4

THOUGHTS/BEHAVIORS	Never Used	Rarely Used	Sometimes Used	Regularly Used
36. Told myself things could be worse.	☐1	☐2	☐3	☐4
37. Talked to someone who could do something concrete about the problem.	☐1	☐2	☐3	☐4
38. Tried to make myself feel better by eating, drinking, smoking, taking medications, etc.	☐1	☐2	☐3	☐4
39. Tried not to act too hastily or follow my own hunch.	☐1	☐2	☐3	☐4
40. Changed something so things would turn out right.	☐1	☐2	☐3	☐4
41. Avoided being with people in general.	☐1	☐2	☐3	☐4
42. Thought how much better off I am than others.	☐1	☐2	☐3	☐4
43. Had fantasies or wishes about how things might turn out.	☐1	☐2	☐3	☐4
44. Just took things one step at a time.	☐1	☐2	☐3	☐4
45. Wished the situation would go away or somehow be finished.	☐1	☐2	☐3	☐4
46. Kept others from knowing how bad things were.	☐1	☐2	☐3	☐4
47. Found out what other person was responsible.	☐1	☐2	☐3	☐4
48. Thought about fantastic or unreal things (like the perfect revenge or finding a million dollars) that made me feel better.	☐1	☐2	☐3	☐4
49. Came out of the experience better than when I went in.	☐1	☐2	☐3	☐4
50. Told myself how much I have already accomplished.	☐1	☐2	☐3	☐4
51. Wished that I could change what happened.	☐1	☐2	☐3	☐4
52. Made a plan of action and followed it.	☐1	☐2	☐3	☐4
53. Talked to someone to find out about the situation.	☐1	☐2	☐3	☐4

THOUGHTS/BEHAVIORS	Never Used	Rarely Used	Sometimes Used	Regularly Used
54. Avoided my problem.	☐1	☐2	☐3	☐4
55. Relied on my faith to get me through.	☐1	☐2	☐3	☐4
56. Compared myself to others who are less fortunate.	☐1	☐2	☐3	☐4
57. Tried not to burn my bridges behind me, but left things open somewhat.	☐1	☐2	☐3	☐4

COHERENCE

It is very important for us to understand the way you experience your current situation. For each statement below, please check the box that best describes what you feel or think <u>now</u> about how things are going for you.

STATEMENTS:	TO A LARGE EXTENT						NOT AT ALL
1. I can make sense out of the things that are happening in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
2. I actively influence the situation I find myself in.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
3. I have no sense of what's going to happen next.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
4. Things in my life are going as well as can be expected.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
5. I know what's going to occur next.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
6. I have little to say about what happens to me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
7. Things are under control.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
8. I know what will happen will be the best that can be expected.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
9. Things occur that make no sense to me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
10. Those who make important decisions for me deserve to do so.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
11. It is difficult for me to see a plan in my life right now.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
12. I understand the situation in which I find myself.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
13. I do not have much influence over what happens next.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
14. Things do not seem well in place in my life right now.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
15. I trust that the people in power have my best interests in mind.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
16. I have little focus to my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

STATEMENTS:	TO A LARGE EXTENT						NOT AT ALL
17. My current situation largely confuses me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
18. There is little order in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
19. I do not actively affect what goes on in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
20. Things are in control in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
21. My current situation is predictable.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
22. My life does not fit together very well.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
23. My life makes sense to me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
24. My situation is under control.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
25. I have little sense of what the future holds for me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
26. I have direction to my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
27. Those who influence my life have the right to do so.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
28. I believe things in my life will work out.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
29. I have a sense of what's going to happen next in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

30. Please rate your present state of hope (how hopeful you are now) by circling <u>one</u> number on the following scale from 1 to 10, with 1 indicating no hope and 10 indicating filled with the most hope possible.

1	2	3	4	5	6	7	8	9	10
NO HOPE									**FILLED WITH HOPE**

GENERAL THOUGHTS AND FEELINGS

A number of statements that people use to describe themselves are given below. Read each statement and then check the appropriate box to indicate how you have been generally feeling. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer that seems to describe how you have been generally feeling.

THOUGHTS/BEHAVIORS	Almost Never	Sometimes	Often	Almost Always
1. I feel pleasant.	☐1	☐2	☐3	☐4
2. I feel nervous and restless.	☐1	☐2	☐3	☐4
3. I feel satisfied with myself.	☐1	☐2	☐3	☐4
4. I wish I could be as happy as others seem to be.	☐1	☐2	☐3	☐4
5. I feel like a failure.	☐1	☐2	☐3	☐4
6. I feel rested.	☐1	☐2	☐3	☐4
7. I feel "calm, cool and collected."	☐1	☐2	☐3	☐4
8. I feel that difficulties are piling up so that I cannot overcome them.	☐1	☐2	☐3	☐4
9. I worry too much over something that really doesn't matter.	☐1	☐2	☐3	☐4
10. I am happy.	☐1	☐2	☐3	☐4
11. I have disturbing thoughts.	☐1	☐2	☐3	☐4
12. I lack self-confidence.	☐1	☐2	☐3	☐4
13. I feel secure.	☐1	☐2	☐3	☐4
14. I make decisions easily.	☐1	☐2	☐3	☐4
15. I feel inadequate.	☐1	☐2	☐3	☐4
16. I am content.	☐1	☐2	☐3	☐4
17. Some unimportant thought runs through my mind and bothers me.	☐1	☐2	☐3	☐4

THOUGHTS/BEHAVIORS	Almost Never	Sometimes	Often	Almost Always
18. I take disappointments so keenly that I can't put them out of my mind.	☐1	☐2	☐3	☐4
19. I am a steady person.	☐1	☐2	☐3	☐4
20. I get in a state of tension or turmoil as I think over my recent concerns and interests.	☐1	☐2	☐3	☐4

FEELINGS AND BEHAVIORS

Below is a list of the ways you might have felt or behaved. How often have you felt this way during the past week? Please check the box that fits your situation best.

DURING THE PAST WEEK:	Rarely or none of the time (less than 1 day)	Some or little of the time (1-2 days)	Moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	☐1	☐2	☐3	☐4
2. I did not feel like eating; my appetite was poor.	☐1	☐2	☐3	☐4
3. I felt that I could not shake off the blues even with help from my family and friends.	☐1	☐2	☐3	☐4
4. I felt that I was just as good as other people.	☐1	☐2	☐3	☐4
5. I had trouble keeping my mind on what I was doing.	☐1	☐2	☐3	☐4
6. I felt depressed.	☐1	☐2	☐3	☐4
7. I felt that everything I did was an effort.	☐1	☐2	☐3	☐4
8. I felt hopeful about the future.	☐1	☐2	☐3	☐4
9. I thought my life had been a failure.	☐1	☐2	☐3	☐4
10. I felt fearful.	☐1	☐2	☐3	☐4
11. My sleep was restless.	☐1	☐2	☐3	☐4
12. I was happy.	☐1	☐2	☐3	☐4
13. I talked less than usual.	☐1	☐2	☐3	☐4
14. I felt lonely.	☐1	☐2	☐3	☐4
15. People were unfriendly.	☐1	☐2	☐3	☐4

DURING THE PAST WEEK:	Rarely or none of the time (less than 1 day)	Some or little of the time (1-2 days)	Moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
16. I enjoyed life.	☐1	☐2	☐3	☐4
17. I had crying spells.	☐1	☐2	☐3	☐4
18. I felt sad.	☐1	☐2	☐3	☐4
19. I felt that people dislike me.	☐1	☐2	☐3	☐4
20. I could not get "going."	☐1	☐2	☐3	☐4

LIFE EVENTS

Below are some hard things that sometimes happen to people. Please try to think back over the past year to remember if any of these things happened. If you did not experience the event in the past year, check "No"; if you did experience the event, check the box that best indicates how much it upset you.

DURING THE PAST YEAR:	No	Yes, and it upset me: Not too much	Moderately (Medium)	Very much
1. Did your spouse or partner die?	☐1	☐2	☐3	☐4
2. Did a close friend or family member die or have a serious illness (other than your spouse or partner)?	☐1	☐2	☐3	☐4
3. Did you have any major problems with money?	☐1	☐2	☐3	☐4
4. Did you have a divorce or break-up with a spouse or partner?	☐1	☐2	☐3	☐4
5. Did a family member or close friend have a divorce or break-up?	☐1	☐2	☐3	☐4
6. Did you have a major conflict with children or grandchildren?	☐1	☐2	☐3	☐4
7. Did you have any major accidents, disasters, muggings, unwanted sexual experiences, robberies, or similar events?	☐1	☐2	☐3	☐4
8. Did you or a family member or close friend lose their job or retire?	☐1	☐2	☐3	☐4
9. Were you physically abused by being hit, slapped, pushed, shoved, punched or threatened with a weapon by a family member or close friend?	☐1	☐2	☐3	☐4
10. Were you verbally abused by being made fun of, severely criticized, told you were a stupid or worthless person, or threatened with harm to yourself, your possessions, or your pets, by a family member or close friend?	☐1	☐2	☐3	☐4
11. Did a pet die?	☐1	☐2	☐3	☐4

HEALTH BEHAVIOR

The next several sets of questions are about your health behaviors and beliefs.

Please read the following questions and fill in the blanks or check the box that corresponds to the best answer for you. Again, there are no right or wrong answers to these questions.

1. **Do you know how to examine your breasts for lumps?**
   - ☐1 No
   - ☐2 Yes

2. **Why did you have your last mammogram?** *(Check the one main reason.)*
   - ☐1 Recommended by health care provider
   - ☐2 Recommended by family/friend
   - ☐3 I thought I should have it done
   - ☐4 Have never had a mammogram
   - ☐5 Other_____

3. **Have you ever had a Pap smear?**
   - ☐1 No
   - ☐2 Yes

4. **Have you ever had a test for blood in your stool, called a hemoccult test?** (This is a test for colon cancer where you smear a small amount of stool on a special card and send it to your doctor.)
   - ☐1 No
   - ☐2 Yes

5. **Have you ever been tested for high blood pressure?**
   - ☐1 No
   - ☐2 Yes

6. **How often do you use seat belts when you drive or ride in a car?**
   - ☐1 Never
   - ☐2 Once in a while
   - ☐3 Most of the time
   - ☐4 Always

7. **During the past month, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?**
   - ☐1 No
   - ☐2 Yes

8. **Some people visit a doctor for a routine check-up, even though they are feeling well and have not been sick. About how long has it been since you last visited your doctor for a routine check-up?**
   - ☐1 Within the past year
   - ☐2 Within the past 2 years
   - ☐3 Within the past 5 years
   - ☐4 More than 5 years ago

9. **Have you ever had your blood cholesterol checked?** (Blood cholesterol is a fat substance found in the blood.)
   - ☐1 No
   - ☐2 Yes

10. **When you are exposed to the sun, how often do you take measures to avoid getting sunburned?**
    - ☐1 Never
    - ☐2 Once in a while
    - ☐3 Most of the time
    - ☐4 Always

BREAST CANCER RISK JUDGMENTS

For each of the statements below, please check the box that corresponds with your view.

1. **Compared to other women my age, my chances of getting breast cancer in the future are:**
   - ☐$_1$ Much below average
   - ☐$_2$ Below average
   - ☐$_3$ A little below average
   - ☐$_4$ Average for women my age
   - ☐$_5$ A little above average
   - ☐$_6$ Above average
   - ☐$_7$ Much above average

2. **"If you don't have breast cancer by the time you're my age, you're not likely to get it." Do you ...**
   - ☐$_1$ Disagree
   - ☐$_2$ Agree somewhat
   - ☐$_3$ Agree

3. **How serious is breast cancer?**
   - ☐$_1$ Not at all serious
   - ☐$_2$ Slightly serious
   - ☐$_3$ Serious
   - ☐$_4$ Very serious
   - ☐$_5$ Extremely serious or fatal

4. **How preventable is breast cancer?**
   - ☐$_1$ Can do nothing to reduce risk
   - ☐$_2$ Can reduce risk a little
   - ☐$_3$ Can reduce risk a lot
   - ☐$_4$ Completely preventable

5. **How preventable is dying from breast cancer?**
   - ☐$_1$ Can do nothing to reduce risk
   - ☐$_2$ Can reduce risk a little
   - ☐$_3$ Can reduce risk a lot
   - ☐$_4$ Completely preventable

6. **What is your past experience with breast cancer?**
   - ☐$_1$ Don't know anyone this has happened to
   - ☐$_2$ Has happened to acquaintances
   - ☐$_3$ Has happened to close friends/relatives
   - ☐$_4$ Has happened to me once
   - ☐$_5$ Has happened to me more than once

7. **How much does worrying about getting breast cancer interfere with your daily activities?**
   - ☐$_1$ Not at all
   - ☐$_2$ A little
   - ☐$_3$ Somewhat
   - ☐$_4$ A lot

8. **How much do <u>other</u> women worry about getting breast cancer?**
   - ☐$_1$ Not at all worried or concerned
   - ☐$_2$ Feel some slight worry
   - ☐$_3$ Feel moderately worried
   - ☐$_4$ Quite worried or concerned

9. **Do you think that women are reluctant or embarrassed to admit that they have breast cancer?**
   - ☐$_1$ Not at all embarrassed
   - ☐$_2$ Some slight embarrassment
   - ☐$_3$ Moderately embarrassed
   - ☐$_4$ Quite embarrassed

10. **Out of one hundred women, how many would you guess experience breast cancer at some time in their lives?**

Less than 1	1	2	5	10	20	40	60	80	Over 90
☐$_1$	☐$_2$	☐$_3$	☐$_4$	☐$_5$	☐$_6$	☐$_7$	☐$_8$	☐$_9$	☐$_{10}$

HEALTH AND CANCER BELIEFS

Please read the statements below and check the box that corresponds with how strongly you agree or disagree with the statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It is extremely likely I will get breast cancer in the future.	☐1	☐2	☐3	☐4	☐5
2. I feel I will get breast cancer in the future.	☐1	☐2	☐3	☐4	☐5
3. There is a good possibility I will get breast cancer in the next 10 years.	☐1	☐2	☐3	☐4	☐5
4. My chances of getting breast cancer are great.	☐1	☐2	☐3	☐4	☐5
5. I am more likely than the average woman to get breast cancer.	☐1	☐2	☐3	☐4	☐5
6. The thought of breast cancer scares me.	☐1	☐2	☐3	☐4	☐5
7. When I think about breast cancer, my heart beats faster.	☐1	☐2	☐3	☐4	☐5
8. I am afraid to think about breast cancer.	☐1	☐2	☐3	☐4	☐5
9. Problems I would experience with breast cancer would last a long time.	☐1	☐2	☐3	☐4	☐5
10. Breast cancer would threaten a relationship with my boyfriend, husband, or partner.	☐1	☐2	☐3	☐4	☐5
11. If I had breast cancer, my whole life would change.	☐1	☐2	☐3	☐4	☐5
12. If I developed breast cancer, I would not live longer than 5 years.	☐1	☐2	☐3	☐4	☐5
13. I want to discover health problems early.	☐1	☐2	☐3	☐4	☐5
14. Maintaining good health is extremely important to me.	☐1	☐2	☐3	☐4	☐5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15. I search for new information to improve my health.	☐1	☐2	☐3	☐4	☐5
16. I feel it is important to carry out activities that will improve my health.	☐1	☐2	☐3	☐4	☐5
17. I eat well-balanced meals.	☐1	☐2	☐3	☐4	☐5
18. I exercise at least 3 times a week.	☐1	☐2	☐3	☐4	☐5
19. I have regular health check-ups even when I am not sick.	☐1	☐2	☐3	☐4	☐5
20. When I get a recommended mammogram, I feel good about myself.	☐1	☐2	☐3	☐4	☐5
21. When I get a mammogram, I don't worry as much about cancer.	☐1	☐2	☐3	☐4	☐5
22. Having a mammogram or x-ray of the breasts will help me find lumps early.	☐1	☐2	☐3	☐4	☐5
23. Having a mammogram or x-ray of the breasts will decrease my chances of dying from breast cancer.	☐1	☐2	☐3	☐4	☐5
24. Having a mammogram or x-ray of the breasts will decrease my chances of requiring radical or disfiguring surgery if breast cancer occurs.	☐1	☐2	☐3	☐4	☐5
25. Having a mammogram will help find a lump before it can be felt by myself or a health professional.	☐1	☐2	☐3	☐4	☐5
26. Having a routine mammogram or x-ray of the breasts would make me worry about breast cancer.	☐1	☐2	☐3	☐4	☐5
27. Having a mammogram or x-ray of the breasts would be embarrassing.	☐1	☐2	☐3	☐4	☐5
28. Having a mammogram or x-ray of the breasts would take too much time.	☐1	☐2	☐3	☐4	☐5
29. Having a mammogram or x-ray of the breasts would be painful.	☐1	☐2	☐3	☐4	☐5
30. Having a mammogram or x-ray of the breasts would cost too much money.	☐1	☐2	☐3	☐4	☐5

CANCER RISK APPRAISAL

The last set of questions asks about additional aspects of your background that may relate to your risk of developing breast cancer. Some of these questions are similar to those previously asked. Please answer each question by checking the appropriate box or filling in the blanks.

1. **How old were you when you had your first menstrual period?**
   - ☐1 10 or under
   - ☐2 11 to 14
   - ☐3 15 or over

2. **Do you still menstruate?**
   - ☐1 Yes *(skip to Q.3)*
   - ☐2 Not regularly *(skip to Q.3)*
   - ☐3 No →

   2a. If you no longer menstruate, how old were you when you stopped?
   - ☐1 44 or under
   - ☐2 45 to 50
   - ☐3 51 to 54
   - ☐4 55 or over

   2b. Why did menstruation stop?
   - ☐1 Natural aging
   - ☐2 Surgical removal of female organs
   - ☐3 Other *(specify):*

     _____
     _____

3. **Have you ever given birth to a child (including stillborn, excluding miscarriages)?**
   - ☐1 No *(skip to Q.4)*
   - ☐2 Yes →

   3a. How old were you when your first child was born?

   _____ years old

4. **Have you ever had breast cancer?**
   - ☐1 No
   - ☐2 Yes

5. **Has a physician ever removed tissue from your breast (done a biopsy)?**
   - ☐1 No *(skip to Q.6)*
   - ☐2 Yes →

   5a. How many times has this occurred?

   _____ times

6. **Has any blood relative (living or dead) had cancer?**
   - ☐1 No *(skip to Q.7)*
   - ☐2 Don't know *(skip to Q.7)*
   - ☐3 Yes ↓

   6a. Has any blood relative (living or dead) had **breast cancer?**
   - ☐1 No *(skip to Q.7)*
   - ☐2 Don't know *(skip to Q.7)*
   - ☐3 Yes

   6b. Has your mother had **breast cancer?**
   - ☐1 No
   - ☐2 Yes
   - ☐3 Don't know

   6c. For each type of blood relative listed below, circle the number of relatives who have had breast cancer. (*Circle "0" if NONE have had breast cancer or if you do not have any of that type of relative. Circle "unknown" if you do not know whether any have had breast cancer.)*

Sister(s)	0	1	2	3	Unknown
Aunt(s)	0	1	2	3	Unknown
Daughter(s)	0	1	2	3	Unknown
Grandmother(s)	0	1	2	3	Unknown

   6d. Has any blood relative not mentioned above had **breast cancer?**
   - ☐1 No
   - ☐2 Yes

7. **How many times do you examine your breasts in a year?** *(Write "O" if you never do and skip to Q.8.)*

↓

_____ times

7a. How often do you examine your breasts?
- ☐1 Weekly
- ☐2 Monthly
- ☐3 Every other month
- ☐4 Every 3 months
- ☐5 Other *(specify)*_____

8. **When was your most recent breast examination by a doctor or nurse?**
- ☐1 I've never had one *(Skip to Q.9.)*
- ☐2 Within the past 6 months
- ☐3 7 to 12 months ago
- ☐4 1 to 2 years ago
- ☐5 Over 2 years ago

8a. How often do you have your breasts examined by a doctor or nurse?
- ☐1 Every 6 months
- ☐2 Every 12 months
- ☐3 Other *(specify)*_____

9. **How confident are you about your ability to perform breast self-examination?**
- ☐1 Very confident
- ☐2 Fairly confident
- ☐3 Not very confident
- ☐4 Not confident at all

10. **Have you had a mammogram (x-ray of breasts only)?**
- ☐1 No *(skip to Q. 11)*
- ☐2 Yes

↓

10a. To the best of your memory, when was your most recent mammogram?
- ☐1 Within the past 6 months
- ☐2 7 to less than 12 months ago
- ☐3 1 to less than 2 years ago
- ☐4 2 to less than 3 years ago
- ☐5 3 to less than 5 years ago
- ☐6 5 to less than 10 years ago
- ☐7 Over 10 years ago

10b. How often do you get a mammogram?
- ☐1 Every 6 months
- ☐2 Every 12 months
- ☐3 Every 18 months
- ☐4 Every 24 months
- ☐5 Other *(specify)* _____

11. **What is your height without shoes?**

_____ feet _____ inches

12. **What is your weight without shoes?**

_____ pounds

13. **Compared to other people your age, is your health excellent, good, fair, or poor?**
- ☐1 Excellent
- ☐2 Good
- ☐3 Fair
- ☐4 Poor

14. **Have you ever been told by a doctor or nurse that you have any of the following?** *(Check all that apply.)*
- ☐1 Diabetes
- ☐2 Heart attack
- ☐3 Stroke
- ☐4 High blood pressure

15. Are you currently taking medicine for high blood pressure?

☐$_1$ No
☐$_2$ Yes

16. Do you currently smoke cigarettes?

☐$_1$ No, I never smoked *(skip to Q. 17)*
☐$_2$ No, I quit
☐$_3$ Yes

16a. How many cigarettes do you smoke in an average day?
☐$_1$ 1-2 cigarettes a day
☐$_2$ 3-14 a day
☐$_3$ 15-24 a day
☐$_4$ 25 or more a day

16b. How many years in all have you been smoking cigarettes?
_____ years

16c. When you were smoking, how many cigarettes did you smoke in an average day?
☐$_1$ 1-2 cigarettes a day
☐$_2$ 3-14 a day
☐$_3$ 15-24 a day
☐$_4$ 25 or more a day

16d. How many years in all did you smoke cigarettes before you quit?
_____ years

16e. How many years ago did you quit?
_____ years

17. Have you ever taken birth control pills?

☐$_1$ No *(skip to Q.18)*
☐$_2$ Yes

17a. How old were you when you started taking birth control pills?
_____ years

17b. How many years in all have you taken birth control pills?
_____ years

18. Have you ever taken estrogens or other hormones for menopausal symptoms or prevention of osteoporosis?

☐$_1$ No *(skip to Q.19)*
☐$_2$ Yes

18a. How old were you when you started taking estrogens?
_____ years

18b. How many years in all have you taken estrogens?
_____ years

19. What do you think is your risk of breast cancer?

☐$_1$ High
☐$_2$ Moderate
☐$_3$ Low
☐$_4$ I have no risk

Thank you for participating in the Breast Cancer Awareness Program.

Please take a moment to review any questions you may have missed. Feel free to write any comments here:

Questionnaire Packet # 2

INSTRUCTIONS

- Please try to answer every question in the booklet (unless you are asked to skip questions because they don't apply to you). Some questions may look alike, but each one is different. If answering a particular question makes you uncomfortable, you may skip that question.

- Answer the questions by checking the appropriate box, circling the appropriate number, or filling in the answer as requested.

- If you are not sure about how to answer a question, please give the best answer you can and make a comment in the left margin. In addition, feel free to list comments, suggestions, or questions on the "Comment Page" located at the end of the booklet. We will read all your comments, so feel free to make as many as you wish.

- All your responses will be kept completely confidential. Questions are for study purposes only, and your name will never be linked with any of your responses.

- It may take you a while to complete the entire booklet. Do not feel that you have to complete it all in one sitting. Feel free to take a break and come back to it later.

- If you have any questions, please call **Gretchen Zunkel** at **667-4095.**

- When you have completed the questionnaire, please return it to the study center in the postage-paid envelope provided.

Thank you for your participation in the Breast Cancer Awareness Program.

We look forward to meeting you!

COHERENCE

It is very important for us to understand the way you experience your current situation. For each statement below, please check the box that best describes what you feel or think <u>now</u> about how things are going for you.

STATEMENTS:	TO A LARGE EXTENT						NOT AT ALL
1. I can make sense out of the things that are happening in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
2. I actively influence the situation I find myself in.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
3. I have no sense of what's going to happen next.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
4. Things in my life are going as well as can be expected.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
5. I know what's going to occur next.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
6. I have little to say about what happens to me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
7. Things are under control.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
8. I know what will happen will be the best that can be expected.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
9. Things occur that make no sense to me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
10. Those who make important decisions for me deserve to do so.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
11. It is difficult for me to see a plan in my life right now.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
12. I understand the situation in which I find myself.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
13. I do not have much influence over what happens next.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
14. Things do not seem well in place in my life right now.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
15. I trust that the people in power have my best interests in mind.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
16. I have little focus to my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

STATEMENTS:	TO A LARGE EXTENT						NOT AT ALL
17. My current situation largely confuses me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
18. There is little order in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
19. I do not actively affect what goes on in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
20. Things are in control in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
21. My current situation is predictable.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
22. My life does not fit together very well.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
23. My life makes sense to me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
24. My situation is under control.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
25. I have little sense of what the future holds for me.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
26. I have direction to my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
27. Those who influence my life have the right to do so.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
28. I believe things in my life will work out.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
29. I have a sense of what's going to happen next in my life.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

30. Please rate your present state of hope (how hopeful you are now) by circling <u>one</u> number on the following scale from 1 to 10, with 1 indicating no hope and 10 indicating filled with the most hope possible.

1	2	3	4	5	6	7	8	9	10
NO HOPE									**FILLED WITH HOPE**

GENERAL THOUGHTS AND FEELINGS

A number of statements that people use to describe themselves are given below. Read each statement and then check the appropriate box to indicate how you have been generally feeling. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer that seems to describe how you have been generally feeling.

THOUGHTS/BEHAVIORS	Almost Never	Sometimes	Often	Almost Always
1. I feel pleasant.	☐1	☐2	☐3	☐4
2. I feel nervous and restless.	☐1	☐2	☐3	☐4
3. I feel satisfied with myself.	☐1	☐2	☐3	☐4
4. I wish I could be as happy as others seem to be.	☐1	☐2	☐3	☐4
5. I feel like a failure.	☐1	☐2	☐3	☐4
6. I feel rested.	☐1	☐2	☐3	☐4
7. I feel "calm, cool and collected."	☐1	☐2	☐3	☐4
8. I feel that difficulties are piling up so that I cannot overcome them.	☐1	☐2	☐3	☐4
9. I worry too much over something that really doesn't matter.	☐1	☐2	☐3	☐4
10. I am happy.	☐1	☐2	☐3	☐4
11. I have disturbing thoughts.	☐1	☐2	☐3	☐4
12. I lack self-confidence.	☐1	☐2	☐3	☐4
13. I feel secure.	☐1	☐2	☐3	☐4
14. I make decisions easily.	☐1	☐2	☐3	☐4
15. I feel inadequate.	☐1	☐2	☐3	☐4
16. I am content.	☐1	☐2	☐3	☐4
17. Some unimportant thought runs through my mind and bothers me.	☐1	☐2	☐3	☐4

THOUGHTS/BEHAVIORS	Almost Never	Sometimes	Often	Almost Always
18. I take disappointments so keenly that I can't put them out of my mind.	☐1	☐2	☐3	☐4
19. I am a steady person.	☐1	☐2	☐3	☐4
20. I get in a state of tension or turmoil as I think over my recent concerns and interests.	☐1	☐2	☐3	☐4

FEELINGS AND BEHAVIORS

Below is a list of the ways you might have felt or behaved. How often have you felt this way during the past week? Please check the box that fits your situation best.

DURING THE PAST WEEK:	Rarely or none of the time (less than 1 day)	Some or little of the time (1-2 days)	Moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	☐1	☐2	☐3	☐4
2. I did not feel like eating; my appetite was poor.	☐1	☐2	☐3	☐4
3. I felt that I could not shake off the blues even with help from my family and friends.	☐1	☐2	☐3	☐4
4. I felt that I was just as good as other people.	☐1	☐2	☐3	☐4
5. I had trouble keeping my mind on what I was doing.	☐1	☐2	☐3	☐4
6. I felt depressed.	☐1	☐2	☐3	☐4
7. I felt that everything I did was an effort.	☐1	☐2	☐3	☐4
8. I felt hopeful about the future.	☐1	☐2	☐3	☐4
9. I thought my life had been a failure.	☐1	☐2	☐3	☐4
10. I felt fearful.	☐1	☐2	☐3	☐4
11. My sleep was restless.	☐1	☐2	☐3	☐4
12. I was happy.	☐1	☐2	☐3	☐4
13. I talked less than usual.	☐1	☐2	☐3	☐4
14. I felt lonely.	☐1	☐2	☐3	☐4
15. People were unfriendly.	☐1	☐2	☐3	☐4

DURING THE PAST WEEK:	Rarely or none of the time (less than 1 day)	Some or little of the time (1-2 days)	Moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
16. I enjoyed life.	☐1	☐2	☐3	☐4
17. I had crying spells.	☐1	☐2	☐3	☐4
18. I felt sad.	☐1	☐2	☐3	☐4
19. I felt that people dislike me.	☐1	☐2	☐3	☐4
20. I could not get "going."	☐1	☐2	☐3	☐4

BREAST CANCER RISK JUDGMENTS

For each of the statements below, please check the box that corresponds with your view.

1. **Compared to other women my age, my chances of getting breast cancer in the future are:**
   - ☐1 Much below average
   - ☐2 Below average
   - ☐3 A little below average
   - ☐4 Average for women my age
   - ☐5 A little above average
   - ☐6 Above average
   - ☐7 Much above average

2. **"If you don't have breast cancer by the time you're my age, you're not likely to get it." Do you ...**
   - ☐1 Disagree
   - ☐2 Agree somewhat
   - ☐3 Agree

3. **How serious is breast cancer?**
   - ☐1 Not at all serious
   - ☐2 Slightly serious
   - ☐3 Serious
   - ☐4 Very serious
   - ☐5 Extremely serious or fatal

4. **How preventable is breast cancer?**
   - ☐1 Can do nothing to reduce risk
   - ☐2 Can reduce risk a little
   - ☐3 Can reduce risk a lot
   - ☐4 Completely preventable

5. **How preventable is dying from breast cancer?**
   - ☐1 Can do nothing to reduce risk
   - ☐2 Can reduce risk a little
   - ☐3 Can reduce risk a lot
   - ☐4 Completely preventable

6. **What is your past experience with breast cancer?**
   - ☐1 Don't know anyone this has happened to
   - ☐2 Has happened to acquaintances
   - ☐3 Has happened to close friends/relatives
   - ☐4 Has happened to me once
   - ☐5 Has happened to me more than once

7. **How much does worrying about getting breast cancer interfere with your daily activities?**
   - ☐1 Not at all
   - ☐2 A little
   - ☐3 Somewhat
   - ☐4 A lot

8. **How much do <u>other</u> women worry about getting breast cancer?**
   - ☐1 Not at all worried or concerned
   - ☐2 Feel some slight worry
   - ☐3 Feel moderately worried
   - ☐4 Quite worried or concerned

9. **Do you think that women are reluctant or embarrassed to admit that they have breast cancer?**
   - ☐1 Not at all embarrassed
   - ☐2 Some slight embarrassment
   - ☐3 Moderately embarrassed
   - ☐4 Quite embarrassed

10. **Out of one hundred women, how many would you guess experience breast cancer at some time in their lives?**

Less than 1	1	2	5	10	20	40	60	80	Over 90
☐1	☐2	☐3	☐4	☐5	☐6	☐7	☐8	☐9	☐10

HEALTH AND CANCER BELIEFS

Please read the statements below and check the box that corresponds with how strongly you agree or disagree with the statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It is extremely likely I will get breast cancer in the future.	☐1	☐2	☐3	☐4	☐5
2. I feel I will get breast cancer in the future.	☐1	☐2	☐3	☐4	☐5
3. There is a good possibility I will get breast cancer in the next 10 years.	☐1	☐2	☐3	☐4	☐5
4. My chances of getting breast cancer are great.	☐1	☐2	☐3	☐4	☐5
5. I am more likely than the average woman to get breast cancer.	☐1	☐2	☐3	☐4	☐5
6. The thought of breast cancer scares me.	☐1	☐2	☐3	☐4	☐5
7. When I think about breast cancer, my heart beats faster.	☐1	☐2	☐3	☐4	☐5
8. I am afraid to think about breast cancer.	☐1	☐2	☐3	☐4	☐5
9. Problems I would experience with breast cancer would last a long time.	☐1	☐2	☐3	☐4	☐5
10. Breast cancer would threaten a relationship with my boyfriend, husband, or partner.	☐1	☐2	☐3	☐4	☐5
11. If I had breast cancer, my whole life would change.	☐1	☐2	☐3	☐4	☐5
12. If I developed breast cancer, I would not live longer than 5 years.	☐1	☐2	☐3	☐4	☐5
13. I want to discover health problems early.	☐1	☐2	☐3	☐4	☐5
14. Maintaining good health is extremely important to me.	☐1	☐2	☐3	☐4	☐5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15. I search for new information to improve my health.	☐1	☐2	☐3	☐4	☐5
16. I feel it is important to carry out activities that will improve my health.	☐1	☐2	☐3	☐4	☐5
17. I eat well-balanced meals.	☐1	☐2	☐3	☐4	☐5
18. I exercise at least 3 times a week.	☐1	☐2	☐3	☐4	☐5
19. I have regular health check-ups even when I am not sick.	☐1	☐2	☐3	☐4	☐5
20. When I get a recommended mammogram, I feel good about myself.	☐1	☐2	☐3	☐4	☐5
21. When I get a mammogram, I don't worry as much about cancer.	☐1	☐2	☐3	☐4	☐5
22. Having a mammogram or x-ray of the breasts will help me find lumps early.	☐1	☐2	☐3	☐4	☐5
23. Having a mammogram or x-ray of the breasts will decrease my chances of dying from breast cancer.	☐1	☐2	☐3	☐4	☐5
24. Having a mammogram or x-ray of the breasts will decrease my chances of requiring radical or disfiguring surgery if breast cancer occurs.	☐1	☐2	☐3	☐4	☐5
25. Having a mammogram will help find a lump before it can be felt by myself or a health professional.	☐1	☐2	☐3	☐4	☐5
26. Having a routine mammogram or x-ray of the breasts would make me worry about breast cancer.	☐1	☐2	☐3	☐4	☐5
27. Having a mammogram or x-ray of the breasts would be embarrassing.	☐1	☐2	☐3	☐4	☐5
28. Having a mammogram or x-ray of the breasts would take too much time.	☐1	☐2	☐3	☐4	☐5
29. Having a mammogram or x-ray of the breasts would be painful.	☐1	☐2	☐3	☐4	☐5
30. Having a mammogram or x-ray of the breasts would cost too much money.	☐1	☐2	☐3	☐4	☐5

Thank you for participating in the Breast Cancer Awareness Program.

Please take a moment to review any questions you may have missed. Feel free to write any comments here:

Risk Appraisal Session

Risk Appraisal Session

Breast Cancer Awareness Program:

Learning About Your Risk

Overview

The risk appraisal session is the participant's first exposure to the intervention program. This session will be conducted by a nurse counselor after the participant has signed a consent form indicating her participation in the study. The risk appraisal will be based on information submitted by the participant in the first questionnaire booklet. It will incorporate the Gail (Gail, Brinton, & Byar, 1989) and GHC (Taplin, Thompson, & Schnitzer, 1990) models of risk assessment for breast cancer which offer participants an accurate view of their risk for breast cancer.

These models are intended to project individualized probabilities of developing breast cancer for females who are being examined annually. The Gail model is based on the Breast Cancer Detection and Demonstration Project (BCDDP) and is used widely in counseling and establishing criteria for clinical trials.

Risk Perceptions

Women who are concerned about their risk for breast cancer need information in order to seek and interpret risk information and also to make informed decisions with regard to early detection and screening. The risk appraisal session will offer women an individual risk assessment as well as an opportunity to express concerns about the risk

appraisal. It is possible that women may overestimate or underestimate their perception of risk. Risk perception is thought to be a complex cognition that is influenced by knowledge, personality, and emotions as well as personal beliefs and values.

Breast Risk Assessment Categories from Group Health Cooperative

Risk Category	Risk Factors		Relative Risk
	Women 40-49	Women 50+	
Level 1 (highest)	Prior breast cancer, 2 1st-degree relatives with breast cancer	Same	4-14
Level 2	1 1st-degree relative with breast cancer	1 1st-degree relative or 2 minor risk factors*	1.9-3.5
Level 3	≥1 minor risk factor*	All other women	1.2-1.9
Level 4 (lowest)	All other women	Not applicable	1.0

*Minor risk factors: 2nd degree relative with breast cancer, early menarche (age 10), late menopause (age 55), 1st birth after age 30 or nulliparity, previous breast biopsy for benign disease. Adapted from Taplin, Thompson & Schnitzer (1990).

Participant Intake

The nurse counselor (NC) will meet the participant on the second floor of the Fred Hutchinson Cancer Research Center. The participant will be escorted to the counselor's office. The participant will have Packet #1 from which the NC will calculate the participant's "risk" for developing breast cancer. While the NC is doing this the participant will be reading the consent form. Questions about the study should be answered after the participant has thoroughly read the consent form. The participant will sign the consent form and the NC will witness the signing.

The delivery of the participant's risk information should be done after eliciting from the participant her perception of personal risk. It is important to determine the participant's view of her personal risk.

Risk Appraisal Session

Preparation:
Day before scheduled risk appraisal

- check schedule of participants with ESR
- obtain phone numbers for scheduled participants
- call participants to confirm time and ask questions (directions, time commitment, etc.)

Day of risk appraisal session

1. Greet the participant on the second floor. Escort her to designated office. Collect Packet #1.

2. Allow participant to ask any questions she may have about the study and give participant the consent form.

3. Set the stage for her to feel confident abut her risk information. The fact that women overestimate or underestimate their risk of breast cancer needs to be incorporated into the reisk assessment.

4. While participant reads and signs consent form, enter risk information into computer program (Risk).

5. Answer any other questions that arise after reading consent form.

6. Enter woman's risk data into computer program. Use next decade (enter age 60 if woman 50-59; 70 if woman is 60-69) and then run the program again entering 80 as the age limit.

7. Discuss woman's perception of her risk- How much does she worry about her future risk of breast cancer?
   What is her perception of risk factors and which ones does she feel affect her?
   Does she consider herself to be at above, below, or at average risk for breast cancer?

8. Inform the participant of the risk percentages according to the computer calculation. Also, assign to risk group based on GHC model.

9. Sensitively discuss woman's reaction and congruency to her perception of risk.

8. Explain the next steps, i.e., that woman will be assigned to a group and have her fill out the form stating her optimal times for the group.

9. Give participant a sense of time-line for participation; either she will be assigned to a group right away or else she will wait for about a month.

10. Emphasize that this is a time for her to consider her health and maybe reevaluate her current health practices.

11. Thank participant and tell her that you will look forward to seeing her.

Intervention Session
1, 2, 3, 4

Session 1 - Risk

Begin session

Attendance and Recordkeeping:

- express appreciation for their attendance
- explain the goal of the Breast Cancer Awareness Study
    1. provide current information about breast cancer, it's risk factors and the latest screening behaviors that may help control the disease
    2. provide a forum for discussion of participant's concerns and worries and offer strategies for dealing with these feelings
- explain purpose and groundrules of sessions
    confidentiality
    information gathering
    develop group support
    problem-solving
- fill out attendance forms (explain importance of attending all sessions)
- conduct introductory activity
- introduce topic - Risk
- pass out risk booklets

Introductory Activity

- pair the group up by asking the following questions:

What year is your car? (pair up the two with the oldest cars)
How many persons were in your graduating class from high school? (pair up the two with the most persons in their class)
What is the farthest place you have traveled? (pair up the two farthest travelers with the each other)
How many letters are in your last names? (pair up the two with the most letters in their names)

- ask participants to ask the following questions of their partner
    1. reasons for joining the study?
    2. benefits that you expect?
- start by asking the women to go around the table telling the group what answers their partner has shared with them

Begin Lecture

Breast Cancer - What we know:

- 90% of women will never develop this disease
- 3 out of 4 women who get breast cancer do not die from the disease
- 20% of breast cancers occur in women under 50 - most common late 60's and older
- early detection can save your life - by practicing methods of early detection you have some control over surviving

show visual aide #1 (graphic of abnormal cells vs normal cells)

Breast cancer is a disease which occurs when normal cells in the breast become abnormal and divide without control or order. These abnormal cells are cancerous and are called malignant. Breast cancer is very common and is classified in several ways depending on its location, type or size.

Terms you may of heard of:

in-situ: when cancer is found at a very early stage when it is very small usually by mammography

invasive: once the cancer spreads within the breast it is called invasive and still may be too small to feel but may be found by mammography or examination

metastatic: when cancer has spread outside the breast to other organs

Reasons for increase in breast cancer cases:

- women are living longer - more likely to survive to the ages when women get breast cancer
- mammography has improved our ability to detect cancer at early stages - finding more cancers sooner
- researchers do not have all the reasons to explain the increase in cases - changes in diet, exercise, delays in childbearing, earlier age of menstruation and possible exposures to environmental pollutants may play a role and are currently being studied. to date, nothing has been proven to prevent breast cancer.

show visual aid #2 (graphic from risk booklet)

This chart compares several of the major causes of death among women. Heart disease is by far the most common, causing more than 8 times as many deaths as breast cancer.

Lifetime Risk - is the likelihood of developing breast cancer at any time during a woman's remaining years of life.

For example: an average 30 year old has a lifetime risk of developing breast cancer of about 1 in 9. If this 30 year old reaches age 70 without developing breast cancer, her remaining lifetime risk has dropped to 1 in 16.

Another way to look at this - Suppose a woman must cross a busy street once a year, there is a chance she will be hit by a car. A younger woman's risk is higher than that of an older woman's because the younger woman probably has more years ahead. So over the years the younger woman will cross the street more times than the older one. Alternatively, the older woman has crossed the street successfully without incident for many years and are no longer at risk for street crossings that have passed.

Short-term Risk - is the likelihood of developing breast cancer in the next 1,5, or 10 years rather than a whole lifetime. Short-term risk increases as a woman ages because breast cancer is mostly a disease of older women.

For example: as a woman gets older her lifetime risk decreases but her short-term risk increases due her biological changes.

Another way to look at this - Using the street analogy, assume younger women are more agile and have better eyesight than an older woman, the younger will be at less risk of being hit during one trip across the street. So, although the lifetime risk of breast cancer is higher for the younger women than for older, for a given year or street crossing, the risk is lower for the younger than the older.

Risk Factors:

- age
- family history
- starting menstrual periods before age 12
- having your first child after age 30
- never having a child
- beginning menopause after age 55
- atypical hyperplasia - a non-cancerous breast abnormality found by breast biopsy
- past history of breast cancer

Potential Risk Factors - inconclusive at this time

- hormone replacement
- alcohol
- overweight
- diet
- oral contraceptives

It is important to understand that many women who develop breast cancer have none of these risk factors. An example of how a woman's risk for breast cancer is increased because of certain risk factors is as follows:

Think about a 50 year old woman at average risk. Her chance of developing breast cancer in the next 10 years is a little more than 1 in 50. If her risk doubles, her chance of breast cancer within the next 10 years increases to 2 in 50. Even though her risk has doubled her chance of developing breast cancer remains small.

Group Discussion

- pass out blank paper
- ask the group the following questions and ask them to write down their answers
    1. What is my most important health concern?
    2. The one thing that comes to mind when I hear the words breast cancer is... (i.e. not raising my children, losing a breast, painful treatment for cancer)
    3. What women in my life have been affected by breast cancer?
    4. What emotions did I feel when I found out about that women referred to in the last question?
    5. How would I describe my breast cancer risk?
    6. What are some of the ways I cope with my emotions?

- ask each participant to share their answers with the group

Relaxation Activity

- pass out Life Qualities Handout and index cards
- tell them to circle 5 life qualities from the list that they consider the most important to them right now
- ask them to write their 5 qualities on the 5 index cards
- ask them hold the cards in front of them like a hand of cards
- use the script below and ask them to "give up" one of their 5 cards at each decision point

Life Quality Script:

I am going to tell you a story. You are on a plane, flying over a jungle. The plane develops engine trouble and needs to put down. However, there is no break in the jungle and the situation looks bad. At the last minute the pilot sees a break and sets the plane down safely. Now that you are on the ground, you realize that the plane cannot take off again because there is not enough open space to gain speed. You have no food or water on the plane and its getting dark. All of a sudden a native appears and says that he knows of a village close by where you can get food and shelter. He will lead you there, but it will cost you one of your life qualities. Which one are you willing to give up? (*pause*)

At the village, there is food available for you to eat, but it will cost you another life quality (*pause*).

There is a place for you to sleep, but it will cost you another life quality (*pause*).

The next morning, a car arrives (note this is a very progressive village) to take you back to civilization, but it will cost you one of your last life qualities, which one will you select (*pause*)?

- explain the point of the story - the last life quality they hold in their hands is probably the one they hold most valuable at this point in their lives
- ask participants to think about how well their work or personal lives provide opportunities to achieve their "most important life quality"
- explain that stress such as risk anxiety can overtake our lives and interfere with what is most important to us
- explain that through the next 3 sessions participants will have opportunities to identify ways that they can increase their "most important life quality in their personal or work-related lives.

Overview of Next Sessions:

- breast cancer screening - discussion of methods for early detection including the latest training in breast self-examination
- social support - discussion of how social support can improve health and well-being
- stress - discussion of how stress affects the body and how relaxation techniques may enhance cellular immune function

End session

- review date and topic of next session
- validate parking

Session 2 - Breast Cancer Screening

Begin Session

Attendance and Recordkeeping:
- fill out attendance form
- brief introductions to refresh people's memories
- questions or concerns from last session
- introduce topic-breast cancer screening

Start Introductory activity and warm-up exercise:
- pass out fortune cookies and a small slip of paper and pen
- ask participants to open their fortune cookie (may eat them if they wish) and write down one question on the slip of paper regarding the topic in their cookie
- place questions in a basket, mix them up and start reading the questions one by one aloud
- ask participants if there are other questions they may have and write those down as well

Begin lecture

show visual aid #1 (3 photos of women demonstrating the 3 methods)

Breast Cancer Screening Program
- mammography (x-ray of the breast)
- clinical breast exam (exam by physician or nurse practitioner)
- breast self-examination (BSE)

These screening tests for breast cancer are generally accepted methods for detecting breast cancer at it's earliest stage. At this time we cannot prevent breast cancer but we do know that if the cancer is detected early women can survive from this disease and lead normal lives.

Screening Reduces Mortality
- early detection results in a 90% survival rate
- programs using mammography and physical examination every 1 to 3 years reduces breast cancer deaths among women ages 50-70 by approximately 40%
- women over 50 are the most likely to benefit from early detection of breast cancer but are the least likely to have the necessary test
- a recent WA state survey showed 80% of the women in this state 40 and older have had a mammogram

Advantages and Disadvantages of Screening Tests

Mammography - effectiveness has been proven in 5 worldwide trials

Advantages :
- it allows detection of early stage breast cancer before it can be felt
- allows a woman more treatment choices and better chance of a cure
- to date is the best screening test

Disadvantages:
- 10 to 15% cancers are missed due to the nature of the tumor and the susceptibility of tissue to radiation
- quality can be compromised by the age of the woman (this test works best in older women who generally have less fibrous tissue in their breasts), the technique and positioning during the procedure and the expertise of the radiologist (facilities should be ACR accredited)
- 5 to 10% of the time results may say it is suspicious of cancer when its not

The ACS recommends that women over 50 should have a mammogram every yr.

Insurance coverage for Screening Mammography
- WA state mandates reimbursement for screening mammograms by 3rd party insurance
- Medicare pays up to 80% for a screening mammogram every 2 years

Clinical Breast Examination - effectiveness has been proven

Advantages:
- test can be done with other health care procedures like pap tests or physical examination
- it may detect those 8-10% cancers that are missed by mammography

Disadvantages:
- effectiveness may vary with the skill of the examiner and the type of breast tissue (dense fibrous tissue is difficult to examine)
- the average size lump detected is > 1cm

ACS recommends that women over 50 should have a clinical breast exam every yr.

Breast Self-Examination - effectiveness in reducing mortality has never been proven

Advantages:
- no cost, convenient self-care practice
- other screening tests are not 100% effective
- gives women control over their own health

Disadvantage:

- women often forget to practice or lack the necessary skills to perform a quality exam that would detect small lumps

ACS recommends that women over 50 should self examine every month

Discuss some of the questions that were identified earlier by the group

Breast Self Examination Training

Purpose:
To enable a woman to take care of their own breast health by noticing any monthly changes. Regular practice with a good technique will enable the woman to know what the normal feel of her breast tissue is like.

show video

BSE is generally accepted as a supplement to, not as a substitute for, mammography and clinical breast exam. Recent BSE studies suggest that the practice of quality BSE may be important in reducing the mortality from breast cancer.

Quality includes:

- coverage of the entire breast
- correct palpation technique(firm pressure, fingerpads, massaging motion, vertical strip pattern preferred)
- 3 position examination

show visual aid #2 (anatomy of the breast)

Discuss anatomy of the breast

Ribs: The breast lies between the 2nd and 6th ribs. The ribs extend across the chest and may feel like hard ridges.

Muscle: Two muscles cover the ribs and lie underneath the breast. These muscles aide in arm movement. Pain in the breast is usually due to overusing these muscles.
Ligament: There is a ligament under each breast that supports the breast. It may feel like a thick shelf or ridge.

*All breasts are made up of the same tissue but they may vary in size or shape. This tissue changes throughout a woman's life due to menstruation, pregnancy and menopause. As a woman experiences menopause the texture of her breast begins to remain the same from month to month. It is normal for a woman to have one breast slightly larger than the other.

Glandular tissue: There are 20 lobes in each breast that contain milk-producing sacs. These lobes connect to ducts that transport the milk to the nipple. These ducts may feel stringy or granular. Almost all breast cancer develops in the lobes and ducts of the glandular tissue.

Fibrous tissue: This tissue supports and connects the glandular tissue. It is prominent in the upper outer area of the breast. It may feel firmer than glandular tissue and moveable.

Fat: Each breast has a protective layer of fat. This fat is like chicken fat. It may feel soft and spongy.

show visual aid #3

Coverage of the Breast:

- upper outer area of breast - 50% of all breast cancers (most glandular tissue)
- lower inner area - less likely, more severe

Show breast models

Purpose of breast models:
lumps in this breast model resemble what an abnormal change may feel like. Abnormal tissue can be any shape and is usually fixed. Although, the breast models represent what a change may feel like, you are still looking for changes in your own breast. You are comparing your breasts from one month to the next.

Demonstrate proper palpation technique on model

- use the flat pads of the fingers not the fingertips
- use firm pressure to compress the breast tissue against the muscle so all deep tissue is reached.
- use a consistent massaging pattern in order to move the tissue for inspection and comparison.
- use pressure over the nipple area and after examining the entire breast, gently lift and squeeze the nipple for discharge. Note: Some women have clear discharge throughout their lives and this kind of discharge is normal. All bloody or colored discharges, however, should be reported to your health care provider.

Pass around the models to the group and encourage women to practice palpation

Demonstrate 3-step procedure

Step 1: Stand before a mirror with arms at your sides. Turn from side to side. Look at both breasts for anything unusual such as swelling or dimpling of the skin. Next raise your arms overhead, turn from side to side. Look again for any changes in the shape of your breast. Then rest palms on hips and press down. This will tighten your chest muscle and emphasize any changes. Turn side to side and look again.

Step 2: Raise your left arm above your head and with right hand examine your left breast. Begin your exam below the collarbone and use the pads of your 3 middle fingers of your right hand. Press firmly, massaging the breast in a set way until the entire breast has been covered. You can choose a circle or up and down pattern. Larger breasted women may want to use the up and down pattern for better coverage. Repeat the exam on your right breast using your left hand. Remember how the parts of the breast feel while checking for any hard knots or thickening.

Step 3: Lie down and put a pillow under your left shoulder. Raise your left arm above your head and with your right hand examine your left breast using the examination technique. Then lift up on your nipple and squeeze it to check for discharge. Repeat the exam on your right breast using your left hand. Notice while lying flat you can more easily identify the parts of the normal breast.

Discuss establishing a habit

BSE is best done once a month. Remember you are comparing your breasts from month to month. Ask yourself does this breast feel any different than last month. Finding a change may be frightening but 80% of all changes found by women are not cancer. Try not to examine your breasts everyday or weekly. Since you are looking for a change, too frequent exams may keep you from noticing an area that is changing.

If you still have menstrual periods: Do your BSE on the last day of you period. A good way to remember is to leave a BSE note with your sanitary supplies and when you use your last pad or tampax that is the best time to do BSE.

If you do not have menstrual periods: Do your BSE on the same day every month. Choose your birthday or the day of the month you always pay bills. Tuck a BSE note in your bill paying drawer.

Contact Your Health-Care Provider - If you notice a change in your breast such as:

- a new lump
- nipple discharge
- a reddened area on the skin that does not go away
- dimpling or puckering of the skin
- a sore or growth
- pain that does not go away

Overcoming Barriers to Screening

- Ask participants to pair up into small groups
- Pass out screening scenarios for discussion
- Ask participants to read scenarios and discuss possible solutions with their partner
- Ask each small group to share their scenario with the group and offer their solution

Scenarios

A friend you haven't seen since high school is visiting you for the day. During lunch she confides to you that she thinks she has a lump in her breast. She is afraid to go make an appointment with her health care provider. What would you say to her?

A friend you haven't seen since high schools is visiting you for the day. During lunch she confides to you that she has never had a mammogram and doesn't intend to. "I've heard they are so painful," she states. What would you say to her?

A friend you haven't seen since high school is visiting you for the day. During lunch she confides that she has read that women her age should have mammograms and breast examinations. She is very reluctant to participate in screening and says "I would be so embarrassed if anyone touched my breasts." What would you say to her?

A friend you haven't seen since high school is visiting you for the day. During lunch she confides to you that her sister found a lump in her breast when bathing in the shower. She further adds that she herself does not examine her own breast. She says, "it's a waste of time for me to check my breasts. It all feels the same and besides that's the doctor's job." What would you say to her?

A friend you haven't seen since high school is visiting you for the day. During lunch she confides to you that her neighbor is foolish because she has annual mammograms. She continues to say "that neighbor will probably get cancer because of all that radiation." What would you say to her?

A friend you haven't seen since high school is visiting you for the day. During lunch she confides to you that her cousin was in a car accident, her breast hit the steering wheel and she ended up having breast cancer. She warns you to be careful not to bruise or pinch your breast as it may cause breast cancer. What would you say to her?

Supplement the groups suggestions with key points from the barrier handout

End session

- pass out BSE and mammography handouts
- review date and topic of next session

Session 3-Social Support

Begin session

Attendance and Recordkeeping:

- fill out attendance form
- questions or concerns from last session (Did anyone make a mammogram appointment or start to practice BSE?)
- introduce social support topic

Introductory activity:

women's friendships are an example of a natural social support system
discuss friendship Vs bouquet of flowers analogy - pass out flowers with tags on them
explain that the vase is the person who can stand alone and is structurally sound
ask the woman who has the flower with the tag "advice" on it to put it in the vase
explain that friends give advice and this is an example of support
continue the exercise announcing each kind of support until all flowers have been placed in the vase (flowers with tags will include: advice, help in crisis, encouragement, shares emotions, confronts me with truth, makes me feel normal, makes me feel special, gives me more time to do things, shares common interests, gives feedback)
explain that now the vase is filled with flowers the vase benefits from holding on to all these flowers, therefore the vase becomes more beautiful and complete
explain that the this bouquet is like a social network where friends are giving something to you which makes the person's life more beautiful and complete. The friends of life help us to achieve our goals and give us support.
now take away one or two of the flowers from the vase
explain that every support system may not have all these flowers but a few flowers can still be beautiful.
stress the point that a quality support system not just quantity is of equal importance.
take away all but one flower from the vase
Explain that this session is about identifying an effective support system.

Begin lecture

Definition of an Effective Social Support System:

- a resource pool: includes people, things, environment and beliefs
- identifying my goals and moving in the right direction: distinguish my goals from other people's goals and organizations.
- increases my strength: a good supportive network should enable me to grow as a person and confront my weaknesses.

Purpose of a Support System:

A support system helps the individual to cope with the stress that comes from their environment or with life's transitions. They help an individual make contributions and reach their personal goals.

Types of Social Support

Nuturant support: someone who makes us feel loved and cared for.
Example - a friend, family member or spouse who listens, try to understand and shows concern

Material support: something that provides material help like money, food, clothing or shelter.
Example - owning a house, having a savings account, working at a job.

Consensus support: experiencing support by being with people who share information, advice and give suggestions.
Example - this group session or clubs.

Approval Support: experiencing support by being with people who evaluate what you do and offer approval that increases your self-esteem.
Example - working as a volunteer or a job supervisor

Sources of Support:

- close friends/family: people who provide nuturant support and caring
- role models: people who show us what is possible and are a source of valuable information about opportunities and problems associated with a given role.
- common Interests: people who share common interest or concerns which results in keeping individuals motivated.
- helpers: people who can be depended on in a crisis such as experts in solving particular kinds of problems.
- respect competence: people who respect the skills one has already developed and who value our contributions.
- referral Agents: people who connect one with resources in their environment through their knowledge and through organizations.
- challengers: people who can motivate one to explore new ways of doing things and may not be personal friends.

show visual aide #1 (*Mind Map with 4 lines and one line expanded upon****)***

Begin Mind Map Activity:

- pass out maps and explain the mind map activity
- encourage participants to draw 4 lines from the center, each representing the four types of social support categories. Explain these lines should be labeled with people or things that fit these categories. Continue to explain that they should expand each of the 4 lines and list the sources of these categories with more labels. Ask participants to list people who provide the following:

1. Advice
2. Help in crisis
3. encouragement
4. shares emotion
5. confronts me with the truth
6. makes me feel normal
7. increases my self-esteem
8. shares common interest
9. gives feedback

On the completion of their map, ask them to evaluate areas where they lack support.

Pitfalls of a support system:

- some of us have a hard time asking for support when we need it the most - fear of bothering other people
- unpredictable - expectation that a loved one will know automatically what we need
- takes energy to maintain a system - letting go of people who are not relevant
- counterproductive - some friends may sabotage efforts to improve oneself which results in making the individual more dependent
- stress selecting appropriate people: includes keeping people who are not helpful from getting in the way and taking the risk of asking people for help.

Ask participants to review their maps for any pitfall areas

S.O.S or SEEKING OUT SUPPORT

S.O.S rules for getting support:

- identify the type of support you want and from whom
- state problems clearly to this person
- ask the person if they can help
- imagine yourself in this person's situation - how would you feel
- re-evaluate what support you expect based on their help
- ask for the support that you want
- express appreciation - let them know how the support has helped you
- be sensitive to excessive demands

S.O.S. rules for giving support:

- listen - be a good listener
- give feedback - let the person know what you have just heard
- non-judgmental attitude - be sympathetic to their concerns
- appropriate suggestions - offer helpful advice
- keep in touch - show you care by inquiring about their progress

Setting Goals for Eliciting Support - explain the steps in the goal process

Step 1: gather information - ask yourself where do you need support in your life? (example - do I need support from my spouse, friend, children, health care provider)

Step 2: select one goal to achieve - realistic Vs unrealistic

- keep them short term
- nonoverwhelming
- easy to reach to minimize failure

(example - a short term goal would be the desire to have my spouse or partner to understand my feelings about breast cancer which is a realistic goal. an example of an unrealistic goal is I want my spouse or partner to understand every feeling I have.)

Step 3: identify factors that interfere with your success - refer to pitfalls (example - a woman friend who reminds you of horror story regarding women with breast cancer)

Step 4: outline a plan - generate a "to do list" of how to take action to accomplish goal (example - my plan will include telling my friend that hearing horror stories about women with breast cancer is not helpful. Tell the friend how she can be helpful.)

Step 5: review your goal - is my goal realistic, did the action work and if not, why not (example - maybe this friend cannot be positive when talking about breast cancer. change your action. for example, do not talk with this friend about breast cancer instead confide in someone else.)

Step 6: measure your goal - evaluate the success of your action plan
(example - maybe the friend is truly listening to your feelings and is giving you the feedback you need.)

Pair activity

- ask participants to pair up in small groups
- pass out worksheets
- explain that they should look at their mind maps, identify one support need (goal) they have and whom from their social support network could provide it
- ask participants to take turns seeking support and giving support
- remind them to use the rules of S.O.S
- ask each pair to share their experience with the larger group

(Probe the pairs with the following questions):
What is the most difficult part of asking for support?
What it the most difficult part of giving support?
How could these uncomfortable feelings be changed?
What is the best part of asking for support?
What is the best part of giving support?
Do you think you will try to follow these rules more often?

Discuss any questions that develop from activity.

End session

- pass out handouts
- review date and topic of next session

Session 4 - Stress

Begin session

Attendance and Recordkeeping:
- fill out attendance form
- questions or concerns from last session (Did anyone try out seeking social support?)
- introduce stress topic

Introductory activity:
- pair up into small groups
- handout paper and pens
- ask groups to write down 6 ways they relax
- discuss relaxation techniques with group by asking each pair to share their list

Begin lecture

Discuss the definition of stress

Stress is defined as a response by your body to any demand made upon it. Your body responds to stress in many ways:
- hormones like adrenaline surge through your body.
- your heartbeat and blood pressure increases.
- your blood sugar rises.

These physical responses have helped humans to survive for thousands of years by helping then run away faster or fight harder. This is why we call out body's reaction to stress the "fight or flight" response.

Most people think of stressors, or things that cause stress, as negative, such as traffic, a difficult job or divorce. But stressors can also be positive experiences like having a baby or completing a satisfying project. Your body cannot tell the difference between a positive and negative stressor. In both cases, your body experiences the same stress effects. If you are not able to let off steam and relax, these effects can be harmful. You may feel tired, depressed, or anxious. During periods of stress, take care of yourself by getting plenty of rest, eating healthily, exercising and relaxing without alcohol or drugs. Help your body to recover from all stress, even when you feel satisfied or excited, to protect your health.

Use stress to your advantage
Stress is like body temperature: if it's too low or too high, you can't survive, but the right balance can keep you going strong. It makes sense to use stress energy positively, to meet life's challenges, experiences and goals.

Turning Stress Into Opportunity - you can't always choose your destiny in life, but you can choose how you cope with it.

Take control:

- get organized
- decide what is important than do it
- learn not to waste time on things that do not matter

Make a commitment:

- choose work that is personally meaningful
- if you cannot choose, make the best at the work you have been given

Be open to change:

- no one is immune from the curves life can throw at us
- react to these curves by using it to help you go where you want to go
- openness to change can increase your sense of control

Coping With Stress

Researchers have found that people fall into two basic categories of reacting to stress. "Approachers" want to know everything they can about the situation, questioning and worrying. They can't rest until the problem is dealt with.
"Avoiders" tend to push things away. They deal with problems by withdrawing from them. Neither of these responses are right or wrong. However, avoiders seem to cope best with short term crisis situations, while approachers handle stress over the long haul. But both are using effective coping methods. Knowing which type you are, can help you choose stress reduction techniques that fit your style.

Avoiders:

- block stress by blocking out the external world
- good coping techniques - reading, hot baths, meditation, doing crossword puzzles

Approachers:

- tend to worry and become upset with situations they cannot control
- good coping techniques - write down worries, set them aside, and at an appropriate time go over them and find solutions. Focus on doing an exercise that takes concentration.

Group Activity:

- handout coping skills exercise
- explain exercise is designed to help them identify the coping skills they currently have or would like to develop.
- discuss the results of the exercise by using the following probes:

Which skills do you feel you have already mastered?
Of the four skills categories (physical, people, personal management, action) which skills would be the most realistic to concentrate on now?
Which would be future skills to build on?

Stress Management

Major work and life changes are common. Whether these changes are welcome or unwelcome, all can be extremely stressful unless we learn how to adjust to them. Taking time to recover, refocus and regenerate following life changes can help us survive and even thrive.

Recover - regaining a sense of balance by stepping back from the situation

- plan a weekend getaway
- go to a movie
- exercise
- share your feelings

Refocus - take a good look

- take time to review what has just happened
- think about why it happened and what it might mean
- sort out your feelings by talking to trusted people

Regenerate - all change is stressful

- get extra rest
- avoid alcohol
- increase your circle of support
- eat properly

Other stress management techniques:

Relaxation exercises - demonstrate some simple stretches

1. neck roll - stretch your right ear to your right shoulder, keeping your left shoulder pulled down. Roll your head down so your chin is on your chest. Continue on to your left side. Do rolls from side to side. Begin with 8.

2. pick fruit - with one hand, reach up as if you were picking an apple from a tree slightly ahead and far above you. go from one arm to the other, building up to 8 times on each side.

3. standing body roll - let your head roll forward until your chin is on your chest. Keep rolling down as your knees begin to bend. When your hands are handing near your knees, rest there a moment and slowly roll back up. Work up to 10 times.

ask group to practice these exercises

Exercise as a stress management tool

Purpose: Exercise is the best management tool that meets your body's needs in times of stress. That's because stress triggers the "fight or flight" response. Exercise helps your body deal with the physiological changes that gets your body revved up.

Types: Walking, cycling, swimming and dancing are some of the best choices. Taking a brisk 10 minute walk outside will ease tension and put your mind in a better mental state for dealing with the demands of life.

Other stress management tools:

- Laughter - researchers have shown that laughter increases relaxation. Muscle tension remains low for up to 45 minutes after a session of vigorous laughter.
- Meditation - an ancient technique in many Eastern traditions for coping with daily stress.
- Visualization - 2 to 3 minutes of guided daydreaming can help you to relax.

Positive Thinking

Research has shown that most illnesses, including headaches, backaches and heart disease, can be influenced by our feelings and stress levels. When we experience life changes-positive or negative-our bodies need time to recover. Having an optimistic attitude can help speed recovery and may even keep you healthier than someone with negative attitudes.

Move ahead techniques:

- find a role model - find someone who seems to make the best of any situation
- find out how that person maintains that attitude and copy it
- practice positive self-talk - tell yourself positive things every day for a month (like "I can do the job, I am a good mother, I am a caring person")
- practice affirmations - say short positive and motivating statements out loud, imagine it happening
- accentuate the positive - no one is positive all the time but you can learn to adopt a more positive and healthier attitude.

Information on other Counseling Sources:

?????

Formation of Peer-led Group:

- summarize for the participants what has been accomplished in the last 4 sessions
- point out the benefit of the social support network that has been established by their active participation in the study.
- suggest that this support could continue by a peer-led group
- give peer-led group handout
- help them set up a peer-led group by reviewing handout

End Session

- give participants stress reliever handouts
- express participation for their attendance and participation
- answer any questions

HANDOUTS

Life Qualities

All of the Life Qualities listed below are considered meaningful by most people. But, which one are the most important for you? Circle the five that you consider the most significant to you right now in your life (personal and work-related).

Accomplishment
Adventure
Authenticity
Autonomy
Challenge
Creativity
Diversity
Expertise
Happiness
Honesty
Inner Peace
Involvement
Loyalty
Pleasure
Relaxation
Risk
Self-Respect
Spirituality
Tradition
Wealth

Advancement
Affection
Authority
Camaraderie
Collaboration
Development
Encouragement
Financial Solidity
Health
Influence
Integrity
Leadership
Order
Recognition
Responsibilty
Security
Similarity
Stability
Vigor
Wisdom

3 WAYS TO TAKE SPECIAL CARE OF YOUR BREASTS (BSE INSTRUCTION CARD)

(Proprietary Material)

Facts About Women's Friendships

Research says that women's friendships are easier than men's to cultivate, in large part because for women there is no stigma attached to admitting a lack of power. Therefore, women are less guarded and less concerned with hiding their weakness. Hiding parts of yourself is a hindrance to forming friendships.
Issue: Being open to share more of yourself increases opportunities for friendship.

It never ceases to amaze how naturally and frequently one woman sits down next to another, a total stranger, on a plane or in a laundromat, and before you know it, they're comparing notes on how to maneuver with men, work and children. Women have discovered at an early age that other women are their best sources of information for problem-solving.
Issue: Other women are your best sources of information for many of your life issues.

Women have little hesitation about admitting self-doubts to each other. this makes communication easier, more personal and offers the possibility of gaining support.
Issue: Sharing self-doubts has results in receiving positive support and is therefore useful.

The bond between young mothers goes a long way toward alleviating the social isolation of being at home with small children. Mothers, no mater what their divergent backgrounds just have so much in common. This helps increase the perspective that one can learn from every person one meets.
Issue: Motherhood is a universal experience.

As women grow older, they gravitate toward intense relationships with other women, in preparation for the later years of the life cycle when male companionship will be scarce.
Issue: Women therefore show flexibility in being able to change their social network.

Women can talk to other women in shorthand, they don't need the big windup. They often interrupt each other, finish each other's sentences, and sense what's coming next. This represents a very spontaneous atmosphere often charged with excitement. Men are more likely to take turns, with each man talking for a longer period of time.
Issue: Women are spontaneous and often exuberant in their communications which is very satisfying.

Support Systems

A support system helps individuals to cope with the stress that comes from the environment or with life's transitions. They help an individual make contributions and reach their personal goals.

Sources of Support:

- close friends/family: people who provide nuturant support and caring
- role models: people who show us what is possible and are a source of valuable information about opportunities and problems associated with a given role.
- common Interests: people who share common interest or concerns which results in keeping individuals motivated.
- helpers: people who can be depended on in a crisis such as experts in solving particular kinds of problems.
- respect competence: people who respect the skills one has already developed and who value our contributions.
- referral agents: people who connect one with resources in their environment through their knowledge and through organizations.
- challengers: people who can motivate one to explore new ways of doing things and may not be personal friends.

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MINDMAPPING EXERCISE

(Proprietary Material)

SOCIAL SUPPORT
SETTING GOALS WORKSHEET

1. Where do I need support in my life?

2. What short term goal would I like to achieve?

3. What obstacles may interfere with my success in achieving this goal?

4. What action do I need to take to achieve my goal?

5. Does my goal and action plan seem realistic?

6. Did my action plan work (if not, why)?

WAYS TO RELAX

IMPROVE YOUR COPING SKILLS EXERCISE

(Proprietary Material)

PEER-LED GROUPS

Purpose: to continue the social support network that has been established by participating in the research study.

Time Interval: meet once or twice a month

Location: home, church hall, resturant, park (for walking exercise)

Leadership: establish a contact person or 2 contact people (to lessen the burden)

Questions to explore during group session:

1. What major accomplishments or concerns do I have to share with the group?
2. What major stressors have I encountered and how did I cope with them?
3. What are my current feelings about my breast cancer risk? (diminshed vs acute)
4. What further information should we seek out as a group?
5. Should we develop a buddy system for physician visits?
6. Should we involve the group in breast cancer awareness activities every October?
7. Should we establish a telephone tree to inform the group of speakers or seminars in our area?

Suggested group activity at first peer-led session:

- list expectations group members have of attending group
    1. what will I give to the group
    2. what will I gain from the group
    3. attendance at all meetings vs some meetings

- assign session maintaince tasks
    4. develop a telephone tree
    5. research areas of interest
    6. communicate to group via reminders of meeting time and location
    7. establish location facilities
    8. seek out special events of interest (Race for the Cure)

ABC's OF STRESS RELIEVERS

Ask for help
Be forgiving
Call up an old friend
Daydream
Eat a good breakfast
Fly a kite
Go for a brisk walk
Hug someone you love
Initiate a conversation
Join a book club
Kiss a baby
Laugh out loud
Make a list
Negotiate a solution
Order take-out food
Paint a peaceful scene in your mind
Quit complaining
Read something funny every day
Smell a rose
Take a long bath
Use your imagination
Voice your opinion
Watch a really good movie
Xerox a sentimental photograph
Yawn and stretch
Zip down the street

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- think about why it happened and what it might mean
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Regenerate - all change is stressful
- get extra rest
- avoid alcohol
- increase your circle of support
- eat properly

Stress Management Tools:

- relaxation exercises - deep breathing and simple stretches can relieve tension

- exercise - 20 minutes of walking, cycling or swimming can best meet your body's needs in times of stress

- laughter - research has shown that laughter increases relaxation

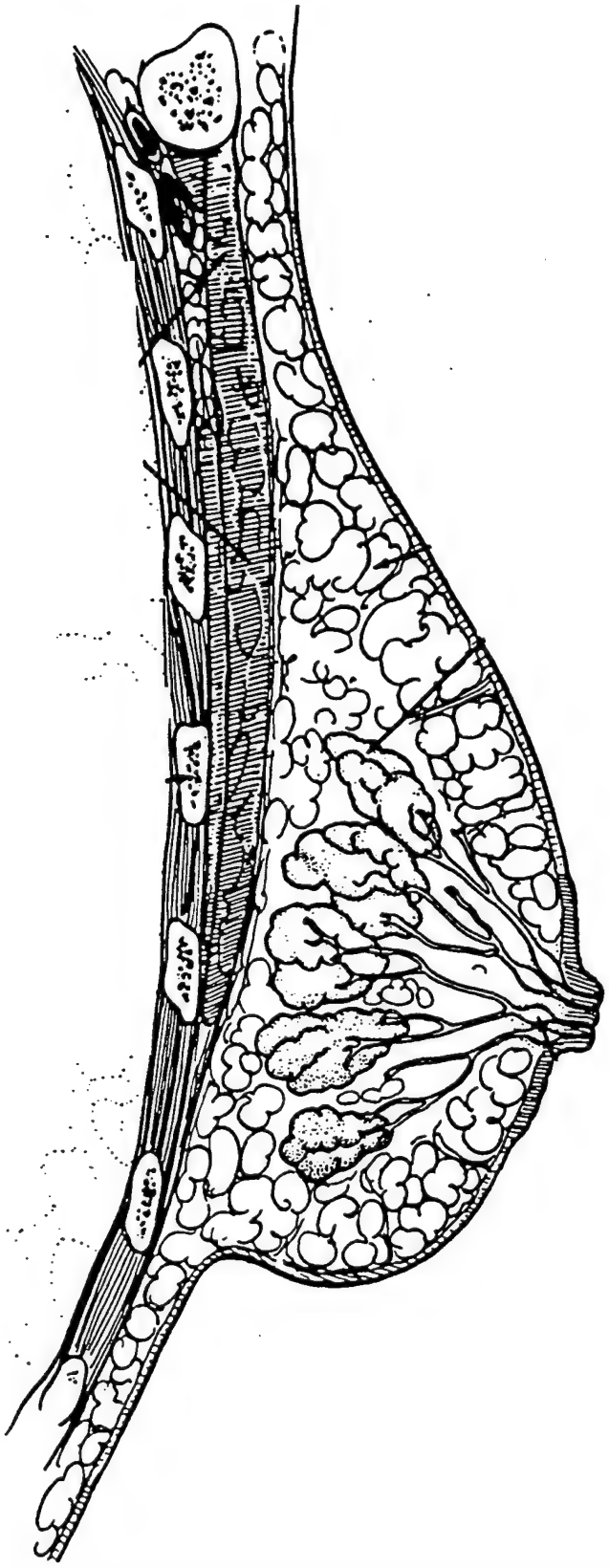
- meditation - an ancient technique in many Eastern traditions for coping with daily stress

- visualization - 2 or 3 minutes of guided daydreaming can help you to relax

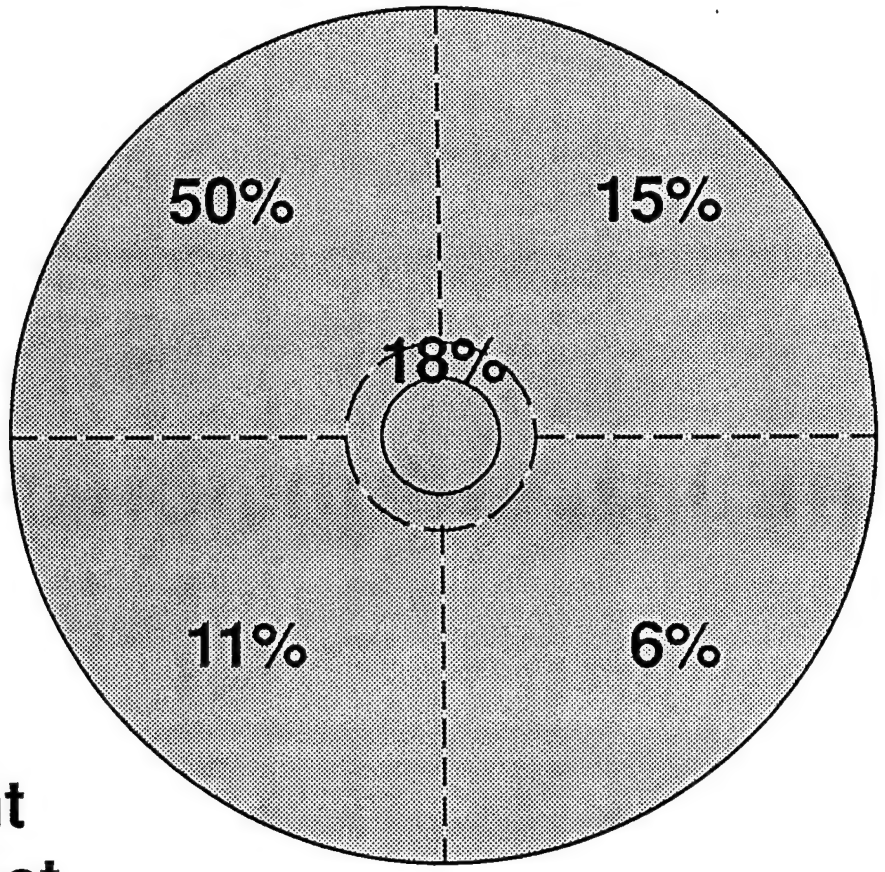
VISUAL AIDS

visual aide #4-session 2

ANATOMY OF THE BREAST



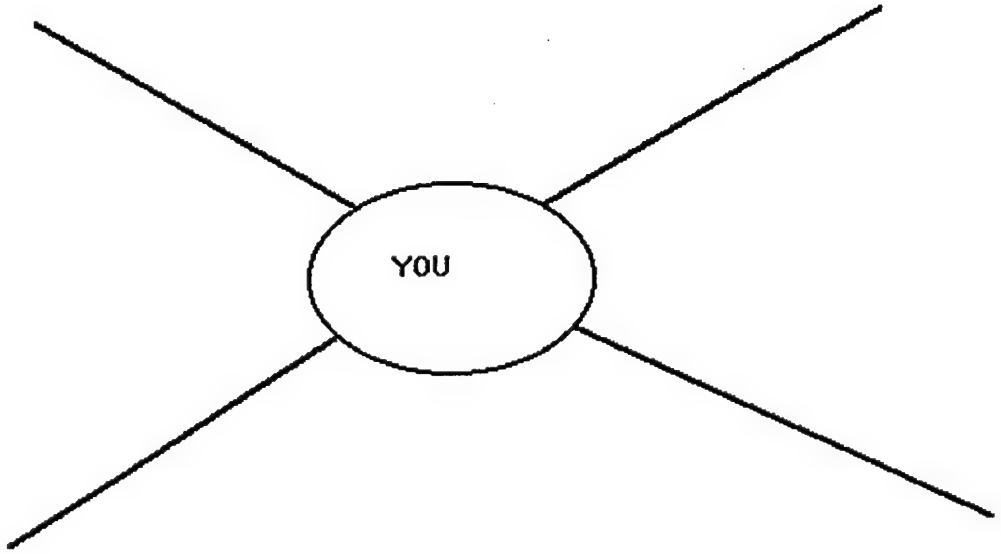
Location of Breast Cancer



Right
Breast

visual aid #4-session 3

MIND MAP



visual aid #5-session 3

S.O.S
Rules for Getting Support

- identify the type of support
- state problems
- ask for help
- imagine yourself in this person's situation
- re-evaluate the support needed
- ask for the support
- express appreciation
- be sensitive

visual aid #1-session 4

Positive stress

- job promotion
- having a baby
- completing a project

Negative stress

- difficult job
- divorce
- traffic

visual aid #2-session 4

STRESS AS A OPPORTUNITY

- take control
- make a commitment
- be open to change

visual aid #3-session 4

AVOIDERS

- **block stress by blocking out the external world**

APPROACHERS

- **worry and become upset about situations they lack control over**

visual aide #4-session 4

STRESS MANAGEMENT

- Recover
- Refocus
- Regenerate